

Rural District of Chester-le-Street.

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SEVENTEENTH  
ANNUAL REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH  
ON THE  
Health and Sanitary Condition  
OF THE DISTRICT  
FOR THE YEAR 1911.

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DURHAM:  
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## CHESTER-LE-STREET.

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TO THE CHAIRMAN AND MEMBERS OF THE RURAL DISTRICT  
COUNCIL.

GENTLEMEN.

I herewith submit for your consideration my Annual Report on the Health and Sanitary condition of your district during the year 1911.

I have to thank your Council for your continued confidence, and for the unvarying assistance I have received from you throughout the year.

I am, Gentlemen,

Your obedient Servant,

JOHN TAYLOR.

*25th March, 1912.*

## INTRODUCTORY.

The area of the district remains unchanged.

## PHYSICAL ASPECT OF THE DISTRICT.

The district is hilly and broken up in numerous valleys, the greater number of which converge to the chief valley called the Team. This chief valley has its long diameter generally North and South.

The elevation varies slightly above sea level to a little over 600 feet.

## OCCUPATION OF THE INHABITANTS.

Whilst Brickmaking, Engineering, Metal-pipe Making, and Agriculture employ some, the great majority of the people are engaged in Mining, with its kindred occupation of Cokemaking.

## NEW ENACTMENTS DURING THE YEAR.

The chief enactments of the year, dealing with the public health, are the National Insurance Act, and the Finance Act which, *inter alia*, provide for the Sanatorium and dispensary treatment of Consumption, by the Councils of Counties and County Boroughs. The former Act provides that a sum of one shilling and fourpence from each insured person be made available annually for the treatment in Sanatoria or otherwise of insured persons, and in certain circumstances of their dependants suffering from tubercular diseases, and the latter Act provides 1½ millions sterling as a capital sum for the provision of Sanatoria and dispensaries for the treatment of tuberculosis.

It is highly probable that the Insurance Commissioners, aided by their Advisory Committee will, alone, or in conjunction with the Local Government Board, formulate a general scheme for the treatment of tuberculosis. It is also probable that amongst other ideas the scheme will suggest, if not make compulsory, the erection of large Sanatoria for the treatment of such cases as those in which there are good reasons for expecting permanent benefit. These institutions would be sufficiently large to require the full time of two or more medical residents. For cases of advanced disease, where any probability of real permanent benefit has disappeared, separate buildings would be used. In this class of case the real object of isolation and care in an institution would be educational. Consumptives are often careless of their sputa, especially when the last stages are reached, where the patient is feeble and increasingly careless. I find that the great majority, if not all consumptives, when once taught the use of the spitting flask, continue to use it to the last, and

if even 90 per cent. of them are taught to use for all times their spitting flask, a great protective agency against the spread of tuberculosis has been introduced.

Bearing on the subject of tuberculosis the Local Government Board issued an order in November dealing with the compulsory notification of Phthisis.

By the provisions of this order medical men attending on consumptives must notify the case to the Medical Officer of Health within 48 hours of becoming aware that he (the practitioner) is dealing with a case of Phthisis. Certain duties are imposed on the Medical Officer of Health, *i.e.*, he is required to keep a register of all cases, and this registration must be considered of a confidential nature, to be produced only to a few officials specially mentioned in the order.

The Local Authority is empowered to provide, with the advice of their Medical Officer of Health, medical and other assistance for the detection of Pulmonary Tuberculosis, to prevent the spread of the disease and to remove conditions favourable to the spread of infection, "and for that purpose may appoint such officers do such acts and make such arrangements as may be necessary."

The words in the latter part of this section appear to me to suggest very strongly the appointment of visitors, male or female, whose duty partly or wholly would be the supervision and advising of the consumptive, and this supervision is a very important step in the control of Phthisis, indeed the experience I have had during the past  $2\frac{1}{2}$  years at the Black Fell, convinces me completely that unless there is continued supervision and advice given to the consumptive, who has been in a Sanatorium, the beneficial results of his treatment in that institution quickly fade and disappear in many, and in all lessen unless he is being continually reminded of his disabilities, and of the best means he can take and practice to keep the enemy at bay. The petty restrictions which he must undergo, galls him and feeling fairly well, he will not submit to such restrictions as his state of health demands, unless he is, as it were, watched.

The order particularly impresses the difference in restrictions so far as infection and isolation are concerned between consumptives and patients suffering from the ordinary accepted infectious diseases. In the latter the period of infection is short, and any curtailment of liberty during detention in a hospital is not of much importance, financially or otherwise, and therefore there is no hardship inflicted on the sufferer, even if he is placed in isolation by compulsory means.



In the former disease not only is the power of infection less marked, but the period of infection is very prolonged, extending over years instead of weeks as in the latter. Again in the latter class of disease the patient is physically unfit to work for the greater part of the period of isolation; in the former the patient may be physically able to work during the greater part of the period he may be required to be isolated. It is, therefore, an equitable suggestion that compulsory isolation be not attempted in cases of pulmonary tuberculosis. This equity in my opinion only applies to the wage-earner in whatever capacity wages may be earned, either as the artisan or the housewife, but I see no reason why children should not have been exempted from the order of no coercion, because there is no loss of wage in children, and consequently no suffering to dependents produced. Further, now that children suffering from tuberculosis may be recognised by the school medical officer, at an early stage of the disease where Sanatorium treatment would be most permanent, it appears to me a pity that compulsory detention in a Sanatorium was not made applicable to all persons under 14 years of age.

If the order is carried out by Local Authorities in the spirit and in the letter an advance of no mean order is made in the treatment of Phthisis.

Nothing further has been done in the bacteriological Examination of milk. If Phthisis is to be efficiently controlled the milk supply of the people must be better supervised. Singular to say, when the purse is the first sufferer rigorous means have been provided to protect the public, against paying milk prices for pump water, but we can conceive a far worse milk for an infant than one containing 20 per cent. of a good water, in the shape of hordes of tubercle bacilli, and yet an authority is forbidden to spend a fraction of a penny on the detection of a highly dangerous content of milk.

During the year a number of samples of water used for domestic purposes were examined bacteriologically, but in all cases the waters were good and perfectly free from faecal pollution.

## POPULATION.

There was a continued growth of your population in the parishes of Lamesley, Washington, Little Lumley, Pelton and Witton Gilbert. The census population is taken as the estimated population at the middle of the year. It was found that the estimates made during the intercensal period were nearly correct although the population of the district was overestimated by about  $1\frac{1}{2}$  per cent.

The number of births in excess of deaths are 1,145, as compared with 1,392 last year, and with 1,419 during the previous year.

The decreasing difference between the surplus during the past years is due this year to two causes, a smaller number of children born and a greater number of people who died.

### MARRIAGES.

The number of marriages registered during the year has been 480, as compared with 534 last year, and with 483 during 1909. The marriage rate for the year has been 15·2 per 1,000, as compared with 16·7 per 1,000 last year, and with 15·3 per 1,000 during the previous year. The marriage rate for England and Wales for the year ending 30th September, 1911, is 14·9 per 1,000.

Marriage rate from 1896 to 1910 inclusive :—

YEAR.	NUMBER.	RATE PER 1,000.
1896 .....	461 .....	16·2
1897 .....	469 .....	16·4
1898 .....	490 .....	16·6
1899 .....	444 .....	15·2
1900 .....	458 .....	15·1
1901 .....	492 .....	16·1
1902 .....	515 .....	16·4
1903 .....	470 .....	14·5
1904 .....	545 .....	16·3
1905 .....	487 .....	14·1
1906 .....	552 .....	15·5
1907 .....	556 .....	15·2
1908 .....	555 .....	14·8
1909 .....	483 .....	15·3
1910 .....	534 .....	16·7
1911 .....	480 .....	15·2

### BIRTHS.

The number of births registered during the year has been 2,189, as compared with 2,361 last year and 2,299 during 1909. This is a rather marked decrease of 172, and this somewhat serious decrease follows a decrease of 20 during the previous year, so that with an increasing population there is a decreasing number of children born.

The birth rate this year is 34·26 per 1,000, as compared with a birth rate of 36·65 per 1,000 last year, and with a rate of 37·75 per 1,000 during 1909. The birth rate during this year is the lowest rate during the past 25 years, the period for which I have any record.

The birth rate for the administrative County is 31·7 per 1,000, and for England and Wales the birth rate is 24·4 per 1,000. The birth rate for England and Wales is the lowest rate on record.

Differing from previous years the second quarter shows the lowest birth rate. The third quarter has the highest birth rate and there is a decline during the fourth quarter, which is the usual rule, and I should say depends more on the failure to register the births than to any other cause.

Comparing the birth rate of your several townships in which there is a population of 2,000 or upwards, Pelton again heads the list (39·32) then come in order Usworth (37·69), Washington (35·67), and Witton Gilbert (34·65), whilst the lowest rates are in Lamesley (28·57) ; Harraton (29·11) ; Urpeth (31·02), and Edmondsley (32·83).

Last year Pelton, Usworth and Washington were amongst the four townships having the highest birth rates, whilst Lamesley and Harraton were amongst the four having the lowest rates, Lamesley last year, as this year, being the lowest.

During the year, 69 illegitimate births have been registered as compared with 63 such births last year. This is equal to a percentage of 3·15 of all births as compared with a percentage of 2·69 of all births last year, and with a percentage of 4·01 during the previous year.

First Quarter, 564 births	..	Rate, 35·31 per 1,000
Second     ,,     513	..	,,   30·13     ,,
Third       ,,     570	..	,,   35·69     ,,
Fourth      ,,     542	..	,,   34·26     ,,

#### DEATHS.

During the year 994 deaths have been registered as occurring within the district as compared with 914 deaths last year and with 908 during 1909. There is an increase of no fewer than 80, as compared with an increase of only 6 during last year. There were, however, 62 deaths of persons belonging to your district, which occurred outside the district, in such places as the Union Workhouse, Chester-le-Street, Sedgfield Lunatic Asylum, your Isolation Hospital which is in the Urban District, and the different general hospitals, whilst 12 persons, who had a domicile without your district, died within your district. This correction gives a grand total 1,044 deaths of persons belonging to your district. The general rate attaching to your district is 16·34 per 1,000, as compared with 14·85 per 1,000 last year, and with 15·01 per 1,000 during 1909. The death rate is



considerably higher than for any of the two previous years, and this is chiefly, if not entirely, due to the alarming death rate of infants caused by the excess of fatal Diarrhœa.

If the table on page 14 be consulted the varying rates for the past 24 years will be seen at a glance.

The general death rate for the Administrative County is 16·1 per 1,000, as compared with 14·3 last year, and it will be observed that your rate is not appreciably higher than the County average. The same rate for England and Wales is 14·6 per 1,000, and only 13·1 in rural England and Wales. In the 77 great towns, including London, the general death rate is 16·4 per 1,000, practically the same as yours. Provided your sanitary conditions had been as good as those of the great towns your death rate should have been lower.

The warm and dry year was just such climatic conditions as would test and try the sanitary conditions and surroundings of the house, and I am afraid yours have been weighed in the balance and found wanting in many respects.

### INFANT DEATHS.

The term Infant Deaths is applied to all deaths which occur before the child has reached the end of the first year of life.

The number of such deaths is 413, as compared with 336 last year, and with 332 during the previous year.

The infant death rate is 188·6 per 1,000 births, as compared with 144·8 per 1,000 born for last year, and with 140·6 per 1,000 born during the previous year. No doubt the very high number of deaths is due to the excess of deaths from diarrhœa.

The infant death rate for the Administrative County is 158 per 1,000 born, as compared with 126 per 1,000 born during the previous year, and for England and Wales the infant death rate is 130 per 1,000 born.

Last year the difference between the infant death rate of England and Wales and your district was 38·8 per 1,000, but this year the difference is 58·6, or 20 per 1,000 greater. Even in the 77 great towns with their crowded streets, narrow dark courts and alleys, the infant death rate is only 140 per 1,000, which shows a saving of life of 48·6 per 1,000 born, or an actual saving of 106 children when compared with your district.

It is difficult to explain why these infants should have died and in all likelihood they would not have died had there been the same chances for them here as in the large towns.

The same Municipal care was not given to them in this district and the fragile infant suffered and died, whilst it lived in the healthier, better protected town.

I have contrasted your district with the slum producing towns, but a fairer comparison would have been with the division of England containing the small towns, and if I do so the comparison is much more unfavourable to your district, for instead of the lives of 106 being saved per year there should have been saved 121 lives.

This year Diarrhœa and Enteritis have been the most fatal maladies, and caused 90 deaths or 21·8 per cent. of total infant deaths, as compared with 16·3 per cent. last year; premature birth was responsible for 62 deaths or 15·0 per cent. of all infant deaths, as compared with 19·0 per cent. last year; and chest affections of an acute nature carried off 68 infants or 16·4 per cent. as compared with 14·8 per cent. last year. The deaths from premature birth, Diarrhœa and chest affections account for 53·2 per cent. of the total infant deaths as compared with 48·3 per cent. last year.

Deaths from premature birth are higher than last year, though the percentage to all deaths is lower, those from diarrhœa are considerably higher.

If one analyses the infant deaths respecting age, it is seen that 98 or 23·7 per cent. died before the 7th day of life, whilst 141, or 34·1 per cent. died before they reached the end of the 4th week of life. During the next 5 months, or before the end of the 6th month of separate existence, other 145, or 35·1 per cent. had died, altogether of the 2189 children born during a year, no fewer than 413 or 18·8 per cent. died before attaining the age of one year, as compared with a percentage of 14·0 last year dying under the same age limit.

One cannot but admit that the loss of 18·8 per cent. of newly born children is food for reflection, the more especially as one is quite aware that many of those lives could have been saved with very little exertion. The life of an infant is so fragile in many instances, that one might liken its existence to a beam—a fine beam—on a fine balance, so long as nothing unfavourable to exact equilibrium appears, the stability of the beam remains perfect, but the slightest jar deranges the balance, so in many children the balance of life or death is so fine that the slightest jar causes the beam to lean towards death.

There are means of turning the beam to the life side, viz., care on the part of the parents which is probably often not exercised, not by intention but by want of knowledge. Remedy

this want of knowledge and the saving of human lives becomes operative. Knowledge how to administer the simple remedies of everyday life, how to guard against overfeeding or bad feeding of the infant, knowledge of the means of guarding against imperfect clothing, some are overclothed, others underclothed, knowledge to guard against the inclemencies of the weather, knowledge to guard against filth in the house, bad ventilation and other such like sins against the elements of health. It is this knowledge which is required by the people, and it is this knowledge which, in my opinion, your Council should commence to teach your people.

In every part of the civilized world where this knowledge has been taught, good results have invariably followed, and I am sure equally beneficial results would follow in a district such as yours, where the infant death rate ranks probably as high as any district in England or Wales.

Of the total number of deaths (1044) the greatest number occurred during the third quarter of the year and the fewest during the second quarter, whilst last year the greatest number of deaths occurred during the first quarter and the least during the second quarter of the year. The two years resemble each other in as much that in each year the second quarter was guilty of the least number of deaths.

First Quarter, Deaths..	240	..	Rate, 15.02 per 1,000		
Second    ,,       ,,    ..	230	..	,,   14.40	,,    ,,	
Third     ,,       ,,    ..	317	..	,,   19.84	,,    ,,	
Fourth    ,,       ,,    ..	257	..	,,   16.09	,,    ,,	

The general rate for each township will be found on Table XII.

In townships having a population of 2,000 and upwards the highest death rates were in Lumley Great (21.59); Pelton (21.19); Urpeth (19.27) and Washington (17.38); and lowest in Lamesley (11.61); Edmondsley (13.49); Harraton (14.70) and Usworth (15.52).

As to the infant death rate in townships with a population of 2,000 and upwards, the highest are in Lumley Great (333); Pelton (254); Urpeth (235); and Washington (218); and lowest in Lamesley (126); Harraton (141); Usworth (156) and Birtley (159).

First Quarter .. Deaths, 87	Rate, 154.2 per 1,000 born.		
Second    ,,       ,,    70	,,   136.4	,,    ,,	
Third     ,,       ,,   158	,,   277.2	,,    ,,	
Fourth    ,,       ,,    98	,,   180.8	,,    ,,	



Deaths from the seven chief Zymotic diseases, viz., Smallpox, Whooping Cough, Scarlet Fever (or Scarletina), Measles, Diphtheria and Membranous Croup, Fever (Enteric or Typhoid, Typhus and Continued), and Diarrhœa, number 224, as compared with 114 last year, and with 112 the previous year. The number of deaths from diarrhœa are much in excess this year, as compared with last year, viz., 134 this year and 71 last year.

The Zymotic death rate is 3·50 per 1,000, as compared with 1·78 per 1,000 last year, and with 1·78 per 1,000 during 1909.

The Zymotic rate for the Administrative County is 3·01 per 1,000, and for England and Wales the Zymotic death rate is 1·88 per 1,000. In townships having a population of 2,000 and upwards the Zymotic death rate is highest in Lunley Great (8·26) ; Pelton (6·28) ; Urpeth (4·80) ; and Witton Gilbert (3·66) ; and lowest in Birtley (1·78) ; Harraton (2·06) ; Washington (2·18) and Edmondsley (2·24).

The following table gives the number of deaths from Zymotic diseases during the past three years :—

DISEASE.	1909.	1910.	1911.
Smallpox .....	0 ..	0 ..	0
Scarlet Fever .....	10 ..	6 ..	5
Measles .....	12 ..	4 ..	35
Whooping Cough .....	28 ..	18 ..	34
Diphtheria and Membranous Croup .....	13 ..	13 ..	6
Fever (Enteric or Typhoid) ..	7 ..	2 ..	10
Diarrhœa .....	42 ..	71 ..	134

Diseases of the Respiratory organs (Pneumonia, Bronchitis. Pleurisy and other diseases of the Respiratory Organs) except Phthisis, caused 191 deaths, as compared with 155 deaths last year and with 166 during 1909.

Deaths from Diarrhœa number 134, as compared with 71 last year and 42 during 1909.

I have in previous reports drawn particular attention to the cause of this disease, viz., filth, chiefly of a fæcal nature, human above all, or of the lower animals especially of the carnivora augmented in virulence by a continued high temperature, and continued dry atmosphere. The more that human fæcal material is preserved in the near approximation to the houses of the people, the more diarrhœa is there to fight against ; the more deaths occur, and the more lost time has the worker to

suffer, because diarrhœa attacks all ages and both sexes. It is especially fatal in the very young and in the aged, probably much more so in the aged now than it was 25 years ago. Its fatality at other age periods stated is demonstrated by the fact that of all deaths from diarrhœa this year 67·16 per cent. was amongst children under one year old and 6·71 per cent. amongst persons over 65 years of life, the two ages accounting for no less than 73·87 per cent. of all deaths from diarrhœa.

Wherever the conservancy system of scavenging is followed and fæcal matter allowed to be hoarded near dwellings from any time varying from a few days to two, three or four weeks, diarrhœa in hot summers is rampant, demanding each year its heavy toll of lives, especially young lives.

In your district the death rate from diarrhœa ranges from 0·75 per 1,000 to as high as 7·8 per 1,000 in different townships, whilst the diarrhœa death rate for your whole district reaches the very high figure of 2·09 per 1,000. If I am to compare the smaller towns area of England and Wales with your district I must take the deaths of children under two years of age, and the comparison is much against your district. In your district the diarrhœa death rate amongst children under two years old is 1·83 per 1,000 of all persons living, but in the smaller towns the same rate is only 1·14 per 1,000.

Had the sanitary condition of your district equalled that of the smaller towns, and there is no reason why it should not, there would have been 44 fewer deaths in your district from diarrhœa than actually occurred.

## BIRTHS AND DEATHS OF ILLEGITIMATE CHILDREN.

During the year these births were 69, as compared with 63 last year. This gives an illegitimate birth rate of 1·08 per 1,000, as compared with a birth rate of 0·98 per 1,000 last year.

The number of deaths of illegitimate children under one year of age is 19, as compared with 23 last year. The infant death rate of illegitimate children is 275 per 1,000 born, as compared with a rate of 188·6 per 1,000 of children born in wedlock.

The birth rate, general death rate, Zymotic death rate, and infant death rate since 1887 are shown in the following table, and it will be observed that the general death rate has fallen in each quinquennium from that of 1891–1895 to the last year. The Zymotic death rate has not varied much, and as Diarrhœa



is the chief factor dominating the Zymotic death rate, one cannot hope for any permanent fall in the Zymotic rate until such time as the breeding places of the micro-organism which produces Diarrhœa are abolished, if not entirely at least materially.

This year the death rate is considerably higher than last year, but if the difference between the number of deaths from diarrhœa this year, be subtracted from the number of deaths from diarrhœa last year, the difference is only an excess of 0.50 per 1,000. Another small rise in the death rate is due to the fact that deaths are now more accurately given as to the real domicile of the dead person.

Previous to this year several deaths of persons belonging to a certain district, but dying outside that district, probably outside the county, were never known to the local Medical Officer of Health, and in consequence were not included amongst the deaths of persons belonging to his district. This militated in the past always in favour of your district.

YEAR.	BIRTH RATE.	QUIN- QUENNIAL AVERAGE.	YEAR.	GENERAL DEATH RATE.	QUIN- QUENNIAL AVERAGE.
1887 ..	39.00	36.77	1887 ..	18.87	18.76
1888 ..	37.70		1888 ..	18.16	
1889 ..	34.60		1889 ..	18.50	
1890 ..	35.80		1890 ..	19.50	
1891 ..	39.50	39.96	1891 ..	19.90	19.20
1892 ..	39.70		1892 ..	19.10	
1893 ..	40.40		1893 ..	20.80	
1894 ..	39.50		1894 ..	20.10	
1895 ..	40.70	38.39	1895 ..	19.70	18.51
1896 ..	38.09		1896 ..	19.00	
1897 ..	37.80		1897 ..	16.50	
1898 ..	38.78		1898 ..	18.35	
1899 ..	38.31	38.53	1899 ..	18.44	18.31
1900 ..	38.96		1900 ..	20.26	
1901 ..	39.12		1901 ..	19.26	
1902 ..	38.58		1902 ..	17.29	
1903 ..	38.36	36.61	1903 ..	18.81	16.13
1904 ..	38.87		1904 ..	18.50	
1905 ..	37.71		1905 ..	17.69	
1906 ..	36.52		1906 ..	16.59	
1907 ..	34.75	36.61	1907 ..	16.44	16.13
1908 ..	37.49		1908 ..	17.67	
1909 ..	37.63		1909 ..	15.01	
1910 ..	36.65		1910 ..	14.85	
1911 ..	34.26		1911 ..	16.34	

YEAR.	ZYMOTIC DEATH RATE PER 1,000.		YEAR.	INFANTILE DEATH RATE PER 1,000 BORN.	
1887	..	...	1887	..	201.0
1888	..	...	1888	..	177.7
1889	..	2.30	1889	..	166.0
1890	..	3.30	1890	..	172.6
1891	..	2.10	1891	..	174.9
1892	..	2.50	1892	..	146.1
1893	..	3.40	1893	..	177.6
1894	..	3.30	1894	..	177.0
1895	..	2.27	1895	..	183.0
1896	..	3.72	1896	..	182.0
1897	..	2.17	1897	..	147.5
1898	..	3.41	1898	..	198.8
1899	..	2.93	1899	..	169.0
1900	..	2.44	1900	..	197.7
1901	..	3.41	1901	..	177.3
1902	..	1.89	1902	..	137.5
1903	..	2.34	1903	..	174.6
1904	..	3.07	1904	..	191.6
1905	..	3.01	1905	..	179.4
1906	..	2.42	1906	..	163.0
1907	..	1.56	1907	..	148.3
1908	..	3.53	1908	..	176.5
1909	..	1.78	1909	..	140.6
1910	..	1.78	1910	..	144.8
1911	..	3.50	1911	..	188.6

The following table gives the chief rates for your district, the administrative County, and for England and Wales per 1,000 of the estimated populations :

	CHESTER-LE STREET.	ADMINIS- TRATIVE COUNTY.	ENGLAND AND WALES.
Estimated population	63,882	933,780	36,169,150
Birth Rate	34.26	.. 31.70	.. 24.40
Death Rate	16.34	.. 16.10	.. 14.60
Zymotic Death Rate	3.50	.. 3.01	.. 1.88
Infant Mortality per 1,000 born	188.60	.. 158.00	.. 130.00
Death Rate per 1,000 population :—			
Smallpox	0.00	.. 0.00	.. 0.00
Scarlet Fever	0.07	.. 0.07	.. 0.05
Diphtheria and Mem- branous Croup	0.09	.. 0.16	.. 0.13
Fever (Enteric)	0.16	.. 0.16	.. 0.07
Measles	0.54	.. 0.44	.. 0.36
Whooping Cough	0.54	.. 0.38	.. 0.21
Diarrhœa	2.09	.. 1.77	.. 1.06
Phthisis	0.75	.. 0.88	
Other Tubercular Diseases	0.83	.. 0.61	
Acute Respiratory Diseases	2.99	.. 2.39	

## PHTHISIS.

During the year 48 deaths from Phthisis (Consumption) have been registered, as compared with 43 deaths last year, and with 41 deaths during the previous year. This gives a death rate of 0.75 per 1,000, as compared with a death rate of 0.67 per 1,000 last year, and with 0.65 per 1,000, during the previous year. There is again this year a further rise in the Phthisis death rate.

The deaths from other Tubercular Diseases, such as Tubercular Meningitis, Tubercular Peritonitis, General Tuberculosis and Tubercular Diseases of other parts of the body, number 53, as compared with 39 last year, and with 31 during 1909. The total deaths from tubercle, *i.e.*, from Phthisis and the diseases just enumerated reach 101, as compared with 82 last year, and with 72 during 1909. The death rate from all tubercular diseases is 1.58 per 1,000, as compared with 1.28 per 1,000 last year, and with 1.14 per 1,000 during the previous year.

## PREVENTION OF TUBERCULAR DISEASES.

During the year I have received by writing or verbally 34 notifications of Phthisis, as compared with 37 notifications for a part of last year. It is evident that a number of cases of Phthisis had not been notified.

The treatment of Phthisical patients in your Council's Smallpox hospital has been continued for a part of the year and with, I conceive, favourable results.

Owing to an outbreak of Smallpox in February the treatment of Phthisis was suspended from the 13th of February to the 20th of April.

The Smallpox patients were not however treated in the permanent building, but in a tent erected in the grounds.

The number of patients admitted during the year has been 34, as compared with 44 during last year; these were composed of 15 females and 19 males. The following table gives the ages of the patients admitted.

AGE.	Under 5 years.	5 and under 15.	15 and under 25.	25 and under 35.	35 and under 45.	45 and under 55.	55 and under 65.	Over 65.
No.	..	11	4	11	7	1	..	..

Following the division of the patients I adopted last year, viz., Class I, Patients suffering from consolidation of the apex of one lung; Class II, Patients suffering from consolidation of both lungs; Class III, Patients suffering from more extensive disease than those either in Class I or Class II, the following numbers were admitted. Of Class I there were 9 cases, Class II there were 14 cases, and of Class III there were 11 cases.

The patients this year were in a more advanced state of the disease than the majority of those last year. Last year there were 34 per cent. in the first class, but this year there was only 26.5 per cent. in the first class.

The results of 2½ years' work of the Sanatorium are as the following table shows.

Admitted during 1909.	Admitted during 1910.	Admitted during 1911.	Total admitted.	Died during 1909.	Died during 1910.	Died during 1911.	Working at end of 1911.	Alive but not working at end of 1911.
29	..	..	..	1	8	1	12	7
..	45	..	..	..	7	7	19	12
..	..	34	..	..	..	5	8	21*
..	..	..	108	1	15	13	39	40

The result of the year's work is as shown by the following table. As before mentioned, 34 had been admitted and 30 discharged. The condition of the patients on discharge has been as follows :—

Died in Sanatorium.		Not improved.		Improved.		Much improved.		Very much improved.	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1	—	5	3	4	2	1	4	6	4

The nett result of the 2½ years' work of the Sanatorium is that 108 patients have been admitted. Of these by the end of

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\* Of this number 13 were resident in the Sanatorium at the end of the year.



the period, 29, or 26·85 per cent. had died, resident in the Sanatorium 13 or 12·03 per cent.; alive but in such a state of health as to render them unable to work 27, or 25·0 per cent. and 39, or 36·12 per cent. had been able to resume and continue work.

I have endeavoured to keep in touch with the patients discharged by means of a few personal visits, by getting a few to call periodically at the Sanatorium, and by the patient returning cards, with which they are provided, to the Sanatorium every month. This practice, the only one which I am able to adopt at present, is not very satisfactory because the supervision is not nearly adequate.

I am fully convinced that Sanatorium discharged patients should be kept under supervision by a tactful person, who will enter into all their complaints and foibles without being either inquisitorial or dictatorial, who will advise and encourage the discharged patient to continue the regime he was subjected to in the Sanatorium.

If a system of regular supervision be not adopted, a great part of Sanatorium treatment disappears at the home of the patient, and the full value of the money spent at the Sanatorium and the full value derived from the treatment are not obtained. To one who has been used from infancy with a warm stuffy, room, fresh air, a "draught" and a cool atmosphere are punishment at the commencement of such a regime, but use and wont soon habituate the patient to an atmosphere which is necessary and beneficial, and soon the patient feels comfortable in a temperature where previously he felt miserable, but when home is again reached, and the watchfulness of the Sanatorium is wanting, the old Adam re-appears, and self-denial in the very great majority succumbs to a feeling of bodily comfort as against mental feeling of what should be the surroundings of the patient.

I am certain that an officer visiting such a patient would give him an impetus to resist this relaxation of the discipline and self-denial which are necessary to the successful resistance of the spread in the system of the tubercle of consumption.

Again, another factor against the continued improvement engendered in the Sanatorium is the difficulty a man, whose working powers are lessened by disease, has in obtaining a good sanitary house. In this case even a health visitor might be of service in procuring for that patient a house more conducive to the betterment of his health than the one presently occupied by the consumptive.

In my opinion in cases where the condition of the disease induces one to believe that a permanent benefit will result from



Sanatorium treatment, at least six months treatment is necessary and most likely many of these cases will require, and should receive, a further period of 3 or 6 months in the Sanatorium.

Respecting cases where hope for permanent benefit does not exist the period of treatment should not be longer than 2 or 3 months, for I have always seen that though these cases generally improve, and some of them markedly improve during the first 3 months residence, that, afterwards, there is a short period of maintenance of the improvement, and then a steady decline to the state in which the patient was admitted and further a continued deterioration to the end.

Certain information asked by the "Board" will be found in Appendix C.

## DEATHS FROM ACUTE RESPIRATORY DISEASES OTHER THAN PHTHISIS.

The deaths from these diseases (viz., Pneumonia, Bronchitis, Pleurisy, and other acute Respiratory Diseases) number 191, as compared with 151 last year, and with 171 during the previous year.

This gives a death rate of 2.99 per 1,000 as compared with a rate of 2.36 per 1,000 last year, and with 2.72 per 1,000 during the previous year. The same rate for the administrative County is 2.39 per 1,000.

## UNCERTIFIED DEATHS.

The number of deaths the cause of which has not been certified by a qualified Medical practitioner or by a coroner's jury number 17, as compared with 22 last year. This is equal to 1.62 per cent. of all deaths, as compared with 2.31 per cent. of all deaths last year, and with 1.48 per cent. for the previous year.

The percentage of uncertified deaths in England and Wales is equal to 1.25 per cent. of all deaths.

## INFECTIOUS DISEASES.

(PHTHISIS NOT INCLUDED).

The number of cases of Infectious Diseases notified during the year has been 377, as compared with 353 last year, and with 574 during the previous year.

Of the total cases 148 or 39.25 per cent. are Scarlet Fever, as compared with 56.37 per cent. last year; 57, or 15.20 per cent. are cases of Enteric Fever, as compared with 7.93 per cent. last

year ; 2, or 0.53 per cent. are cases of Puerperal Fever, as compared with 0.69 per cent. last year ; 92 or 24.40 per cent. are cases of Diphtheria as compared with 15.00 per cent. last year ; 74 or 19.62 per cent. are cases of Erysipelas as compared with 20.11 per cent last year and 4 or 1.06 per cent. are cases of Small-pox, as compared with 0.00 per cent. last year.

The following table gives the statistics for each quarter of the year and the number of notifications, with the attack rate per 1,000 of the population since the year 1890.

First Quarter	.....	83 cases.
Second	„	75 „
Third	„	87 „
Fourth	„	129 „

  

YEAR.	No. OF NOTIFICATIONS.	ATTACK RATE PER 1,000.
1890	403	9.61
1891	412	8.15
1892	571	11.14
1893	842	16.15
1894	538	10.14
1895	711	12.75
1896	819	14.26
1897	378	6.63
1898	403	6.87
1899	485	8.13
1900	683	11.27
1901	822	13.51
1902	818	12.95
1903	1,211	18.78
1904	789	11.85
1905	655	9.49
1906	484	6.82
1907	498	6.82
1908	685	9.14
1909	574	9.14
1910	353	5.52
1911	377	5.90

There was no increase of infectious diseases until the fourth quarter, but during that quarter there was the continuance of the usual seasonal outburst of Enteric Fever which the third quarter produces, and an increase in the number of cases of Diphtheria (from 11 to 32) and in Scarlet Fever which rose from 36 to 59 cases.

The attack rate per 1,000 is however only 0.38 per 1,000 above that of last year.

As far as possible proper instructions are given to the infected persons and their guardians as to the best course to pursue to avoid the spreading of the disease in cases not removed to hospital. In practically every case of Diphtheria and Enteric Fever I have visited the house of the infected and endeavoured to trace the causation of the illness, but my labours have not as a rule proved any definite source.

The people are careless respecting infectious disease, and one is astonished at the little spread of Scarlet Fever and Diphtheria when one considers the perpetual intercourse between the susceptible child and the infectious child.

The following table gives the attack rate of all notifiable diseases per 1,000 of the population both for your district and the administrative County.

	CHESTER-LE STREET.		ADMINISTRATIVE COUNTY.
Smallpox .....	0·06	..	0·02
Scarlet Fever .....	2·31	..	3·50
Diphtheria.....	1·43	..	1·40
Enteric & Continued Fever	0·89	..	1·02
Typhus Fever .....	0·00	..	0·00
Puerperal Fever .....	0·03	..	0·02
Cholera .....	0·00	..	0·00
Plague .....	0·00	..	0·00
Erysipelas .....	1·15	..	0·68
Glanders in Man .....	0·00	..	0·00
Anthrax in Man .....	0·00	..	0·00

The attack rate of all the infectious diseases just enumerated for your district is 5·90 per 1,000 as compared with an attack rate for the administrative County of 6·66 per 1,000.

### SMALLPOX.

There were three cases of Smallpox notified and one case ascertained during the first quarter of the year, but your district has been free from Smallpox since 1905 when there was one case.

The history of the outbreak is interesting in as much as there were plenty of time and opportunity for considerable spread of the disease before the infecting individual was discovered. One saving cause in the small number of cases was due to the man leaving the district for a short time during the infectious stage of his illness.

The first secondary case was not recognised as Smallpox at first, and the man continued to work during the time the crusts were still unshed. Further, this patient who was very

imperfectly protected by primary vaccination, slept with an unvaccinated brother. The patient himself had a very mild attack and the unvaccinated brother did not contract the disease. The second contact case was ill a few days before the disease was suspected to be Smallpox, but fortunately the family of this patient was fairly well protected by primary vaccination and all were re-vaccinated. There was no one in that family contracted the disease. The patient however who was working during the first day of the invasion period, infected another workmen who spent some time on the same seat down the pit. This third contact case, a contact of a contact, was quickly recognised to be suffering from Smallpox and removed to the hospital. The family were all young and well protected by primary vaccination, and the wife of the patient was re-vaccinated. No one of this family contracted the disease. All the patients save the primary or infecting case were removed to the Smallpox hospital.

The infecting case had shed all the crusts before he was discovered and was evidently beyond the infectious period and in consequence was not isolated. Singular to say though there were susceptible persons in this man's house, though all primarily vaccinated, no one of his family contracted the disease. That freedom might be partially explained by what I have already said, that he was residing in a neighbouring sanitary district during a portion of the infectious period, and to that district he communicated Smallpox to a much greater extent than to this district.

Below I give the figures for Vaccination during the past seven years for the Poor Law Union, and it will be observed that the district is becoming more and more a non-vaccinated district.

Year.	Births.	Vaccinated.	Exempted.	Percentage of Unvaccinated Children.
1905	2612	1966	47	2.33
1906	2588	1964	59	2.91
1907	2534	1792	124	6.47
1908	2810	1682	523	23.71
1909	2876	1525	690	31.15
1910	2829	1525	853	35.87
1911	2685	1492	853	36.37

The proportion of unvaccinated to the vaccinated grows every year and soon there will come a time when the vaccinated even imperfectly so, will be the exception, and though rapid isolation will always be able to stamp out an epidemic, some will



be bound to be affected, and the suffering and deaths will be greater than if the populace were well vaccinated. Last year the number of exemptions equalled nearly 36 per cent. of the total, this year the exemptions are more than 36 per cent. of this year's births.

If vaccination were the least harmful, one could understand the logic of refusal, and would be quite prepared for the putting off of the dangerous period, but in as much as vaccination is free from any real danger or possibility of in any way injuring an infant, even for a temporary period, the reason for refusal of vaccination becomes inexplicable.

### SCARLET FEVER

There was a further decline in the number of cases of Scarlet Fever, this being the third year in succession which has witnessed a fall in the number of cases of Scarlet Fever.

The total cases notified numbered 148, as compared with 199 last year and with 379 during 1909.

The attack rate is 2.31 per 1,000, as compared with an attack rate of 3.11 per 1,000 last year, and with an attack rate of 6.20 per 1,000 for 1909.

The attack rate for the administrative County is 3.50 per 1,000.

The type was very mild, thus following the type experienced for the past number of years. The number of deaths was only 5, as compared with 6 last year, and with 10 during the previous year. This equals a mortality of 3.38 per cent. as compared with a mortality of 3 per cent. last year of those attacked.

The mild type of the disease makes the general public have a sort of indifference to the attacks of the disease, but whilst Scarlet Fever is not at present a fatal illness, it is an illness not without its dangers, more I am afraid than is generally suspected, and greater to the after health of the child than to the life of the child during the seizure. Accompanying even slight attacks of Scarlet Fever one has inflammatory conditions of the ear and nose, the former often remaining as a permanent sequela to Scarlet Fever, producing more or less deafness and sometimes by invasion of the brain causing death. In addition there is inflammation of the kidneys which though apparently cured for the time being, often hurries the man to an early grave. These sequelæ are more common amongst those treated at home than amongst the hospital treated cases.

The following table gives the number of cases and the attack rate for the district since 1890, and the second table compares



the attack rate of your district with that of the administrative County.

YEAR.	NUMBER OF CASES NOTIFIED.	ATTACK RATE PER 1,000.
1890	284	5.73
1891	267	5.28
1892	404	7.81
1893	331	6.31
1894	304	5.72
1895	495	8.90
1896	553	9.75
1897	217	3.80
1898	273	4.65
1899	333	5.40
1900	527	8.69
1901	631	10.37
1902	554	8.87
1903	872	13.52
1904	458	6.88
1905	383	5.55
1906	223	3.14
1907	264	3.61
1908	390	5.20
1909	379	6.20
1910	199	3.11
1911	148	2.31

The following table gives the respective rates for the County and your district since 1894 :—

YEAR.	DISTRICT.	COUNTY PER 1,000.
1894	5.72	5.54
1895	8.90	6.62
1896	9.75	5.88
1897	3.80	3.45
1898	4.65	4.11
1899	5.40	6.17
1900	8.69	7.47
1901	10.37	7.97
1902	8.87	7.08
1903	13.52	6.90
1904	6.88	5.74
1905	5.55	4.24
1906	3.14	3.18
1907	3.61	2.68
1908	5.20	3.04
1909	6.20	4.37
1910	3.11	3.94
1911	2.31	3.50

## MEASLES.

This infectious disease has been more prevalent during this year than last year and has caused nearly nine times as many deaths. The disease caused deaths in no fewer than 16 townships and was therefore present practically all over your district. The greatest number of deaths (16) occurred in the township of Pelton. The total number of deaths are 35, as compared with 4 deaths last year, and with 12 deaths during the previous year. This gives a death rate of 0·54 per 1,000, as compared with a death rate of 0·06 per 1,000 last year, and with a rate of 0·19 per 1,000 during the previous year.

The death rate for the administrative County is 0·44 per 1,000, and that for England and Wales is 0·36 per 1,000.

## ENTERIC FEVER.

This disease has been much more prevalent this year than last year, and even more than during the previous year, though there have been considerably fewer cases than occurred during 1908.

The climatic conditions of 1911 were much more favourable to the activity of Enteric Fever than those of 1910 or 1909.

There were five imported cases and six cases were infected by a previous case in the same house, but in the majority of cases there was no obvious cause, that is to say, no concrete cause common to several. The cases were not by any means equally distributed throughout the district, which rather suggested that though the climatic conditions of the year favoured the development of the infecting germ of Enteric Fever, there was suggested in one's mind the possibility that some local influence was at work, providing pabulum and a primary amount of stock from which a greater quantity of germs developed and infected the populace.

The vaunted cause of mussel eating, a custom not by any means common in your district, did not appear to be guilty of any case. The water supply of the district did not apparently infect anyone. The samples of water collected in that area of your district chiefly affected did not show from bacteriological examination any fœcal pollution.

Dividing your district in three great areas according to the source of its water supply, the distribution of the disease is as follows :—

Area I. Upland water ; population 32,267, produced 13 cases or 0·40 cases per 1,000 of the population.

Area II. Newcastle and Gateshead water area ; population 18,982, produced 13 cases or 0·68 per 1,000 of the population ; but No. III area, the area supplied by the Sunderland and South Shields Co.'s water and the water from the Lambton Coal Co.'s deep well at Herrington, both of which companies draw their water from below the limestone, with a population of 12,633 produced 31 cases or 2·45 cases per 1,000, more than  $3\frac{1}{2}$  times as many cases per 1,000 as the Newcastle and Gateshead area produced, and more than six times as many cases per 1,000, as appeared in the area provided with upland water.

Besides those living in the limestone water area, nine cases supplied by other waters lived close to the boundary of the limestone water area and were frequently in that area. Five of the cases occurring at Fatfield, Nos. 6, 7, 8, 10 and 11 in Table XIV, were probably due to a carrier. The dates of notification of of these five cases extend over a period of 15 days, viz., from the 22nd April to the 5th May, but investigation of the cases revealed the fact that the illness of all of them dated from the 14th to the 19th April. All the children about the same day had bought toffee from a person named M.C., who kept a small sweet shop in a house of two rooms. There were no cases of Enteric Fever notified amongst adults in the village of Fatfield at the time nor for a considerable period previously. M.C. kept an adult male lodger, who at the same time developed an illness which was diagnosed to be pneumonia. This patient was removed to the Union Workhouse at Chester-le-Street, which is outside the Rural District. The Medical Officer of the Workhouse diagnosed Enteric Fever, and his diagnosis was confirmed by a positive widal. In the five cases mentioned the diagnosis in every case was confirmed by a positive widal.

M.C. suffered from Enteric fever in 1909 for which she was treated in the Isolation Hospital. The course of her illness was typical of Enteric Fever.

From the fact that only children suffered from the disease, all of whom had bought sweets in her shop, and that the only adult who at that time suffered from Enteric Fever lodged with her, tends to suggest very strongly that the source of the disease was in that house, and that probably M.C. was the "carrier." Endeavours were made to get a bacteriological examination of her faeces but she refused, and consequently the chain of evidence could not be wholly and irrefutably completed.

For details of the probable cause and of the sanitary surroundings of all the cases I would refer the reader to Table XIV.

The attack rate is 0·89 per 1,000, as compared with 0·44 per 1,000 last year, and with 0·8 per 1,000 during 1909.

The attack rate for the administrative County is 1·02 per 1,000.

The following table gives the number of cases, and the attack rate per 1,000, for each year since 1900, the first year of compulsory notification.

YEAR.	NO. OF NOTIFICATIONS.	ATTACK RATE PER 1,000.
1890	53	1·26
1891	71	1·40
1892	69	1·34
1893	353	6·77
1894	111	2·09
1895	72	1·30
1896	108	1·88
1897	33	0·57
1898	39	0·66
1899	57	0·95
1900	57	0·94
1901	71	1·16
1902	67	1·07
1903	32	0·49
1904	48	0·71
1905	78	1·13
1906	65	0·91
1907	23	0·31
1908	112	1·49
1909	51	0·81
1910	28	0·44
1911	57	0·89

In Table IX will be seen the distribution of the disease so far as townships and months of the year are concerned.

#### DIPHThERIA AND MEMBRANOUS CROUP.

This year there has been a considerable increase in the number of cases of Diphtheria, the total number of cases being 92, as compared with 53 last year, and 76 during the previous year.

This gives an attack rate of 1·44 per 1,000, as compared with an attack rate of 0·83 per 1,000 last year, and with 1·21 per 1,000 during the previous year. The greatest number of cases occurred in the townships of Urpeth (35), Witton Gilbert (15), and Usworth (12). There could not be any connection between the cases in those townships, because they are miles apart, and no peculiar or particular interchange of persons amongst the three townships.



There was no suspicion that there was any milk supply guilty of causing the disease.

In the township of Urpeth in which there was a decided excess, viz., 35 cases, there appeared good grounds for believing that the Council's school at Beamish was the centre from which many cases emanated. In the month of June there were in this township 8 cases, most of whom were attending school. The "race week" holiday followed, and during July and August there were only 2 cases notified; September and October produced only 5 cases between them; but in November 11 cases were notified. In this lot only 2 of the cases were attending the school in question, in fact 9 of the 11 had not attained school attendance age. By December the disease had again considerably decreased, the number of cases notified being only 3, and of these only one had reached school age, and she attended the Beamish school, the school suspected.

The excess of cases amongst children attending Beamish school was brought to the notice of the School Medical Officer, one of whose assistants took a number of swabs (7) in June, but all were negative. The time of taking the swabs was not conducive to any other result than negative, because the swabs were taken after the children returned to school from a week's holiday and probably had these swabs from suspicious throats been taken before the holiday the results might have been different.

In the other townships no connecting cause was evident, and the cases were sporadic in origin. As in former years the secondary cases in houses where the primary case was not removed to hospital were entirely negligible, only 2 cases or 3.3 per cent. of all cases not removed to the Isolation Hospital.

The distribution as to age is much the same as in previous years, viz., 31 or 33.6 per cent. being amongst children under 5 years, and 51 cases, or 55.4 per cent. between 5 and 15 years, so that there is 87.0 per cent. of all the cases amongst children under 15 years of age and the great proportion of these cases are amongst children under 12 years of age.

The mortality has been slight compared with former years, although the laryngeal form of diphtheria has been more in evidence this year than during the previous three years. The number of deaths is only 6, which equals a case mortality of only 6.52 per cent., as compared with a case mortality of 24.53 per cent. last year.

The probable cause of the lessened mortality, or at least one of the causes, is the freer use of the Diphtheria Antitoxin, and one other feature this year has been the comparatively large

number which has been treated in the isolation hospital. The hospital cases were in the majority of instances sent early to the institution and in nearly all cases good results followed. The late sent cases, of which there were six, did badly, and this is the usual result which follows the late use of serum. When a fatal dose of diphtheria toxin has entered the blood stream and united with the tissues, Diphtheria antitoxin and everything else is useless, the patient dies generally between the 8th and 12th days of the disease, death being foreshadowed by refusal of food, vomiting, bleeding from the nose or gums, and death takes place within 36 hours of the supervening of any of these symptoms.

The following Table gives the number of cases and the number of deaths in each quarter of the year.

First Quarter, 21 cases notified, 1 death, or 4.76 per cent.					
Second	„	28	„	2	„ 7.14 „
Third	„	11	„	1	„ 9.09 „
Fourth	„	32	„	2	„ 6.25 „

The following Table gives the number of cases and the attack rate per 1,000 since the adoption of the Notification Act of 1890.

YEAR.	NO. OF NOTIFICATIONS.		ATTACK RATE PER 1,000.
1890	.....	6	..... 0.11
1891	.....	15	..... 0.30
1892	.....	27	..... 0.52
1893	.....	29	..... 0.55
1894	.....	15	..... 0.28
1895	.....	16	..... ..
1896	.....	57	..... 1.00
1897	.....	21	..... 0.36
1898	.....	16	..... 0.27
1899	.....	10	..... 0.16
1900	.....	17	..... 0.28
1901	.....	33	..... 0.54
1902	.....	64	..... 1.02
1903	.....	128	..... 1.98
1904	.....	130	..... 1.95
1905	.....	80	..... 1.15
1906	.....	112	..... 1.58
1907	.....	128	..... 1.75
1908	.....	104	..... 1.38
1909	.....	76	..... 1.21
1910	.....	53	..... 0.83
1911	.....	92	..... 1.44

### PUERPERAL FEVER.

During the year 2 cases of puerperal fever have been notified, as compared with 2 cases last year and with 4 cases during the previous year. The number of deaths has been 3, as compared with 2 last year and with 7 deaths during the previous year.

### WHOOPIING COUGH.

During the year 34 deaths from Whooping Cough have taken place, as compared with 18 deaths last year, and with 28 deaths during the previous year. The disease has been much more prevalent this year than during either of the previous two years. The disease caused deaths in 9 of your 19 townships, Pelton being highest, with 12 deaths, and Witton Gilbert next, with 6 deaths, whilst Lamesley and Urpeth had each 4 deaths.

Not only is Whooping Cough a distressing disease whilst it is in its acute stages but it often leaves the lungs deteriorated in vigour, and prepares the way for after bronchial affections.

### DIARRHŒA (ZYMOTIC ENTERITIS).

The year under review, hot, dusty and dry, was extremely favourable for the propagation of the germ producing diarrhœa, and consequently your district suffered to the fullest. The huge amount of fæcal matter hoarded up in the near proximity of houses, along with the fouling by fæcal matter of the immediate vicinity of dwellings, produced a most favourable nursery for the myriads of germs which preyed with such fatal results on the younger portion of the people.

There will always be cases of diarrhœa, but under the present state of affairs one can never hope for the fatality of the disease lessening. In weighing the advantages and costs of sanitary improvements one is confronted with innumerable difficulties. It is extremely difficult to weigh or represent suffering in an equivalent of grains of gold. One cannot become aware of the number of days' wages lost from diarrhœa, but this year the amount lost must have been very considerable indeed. In considering the advisability of converting a conservancy system of excretal disposal into one of water carriage, and of its subsequent cost, this important factor should not be lost sight of. One is always reminded of the charge for water alone. Now how much does that mean? It means the wages of one to two and a half days per annum, and there is every probability that this expense would be saved, and more than saved, by the freedom from this disease, so that the money spent in the maintenance of the water carriage system is money returning a good dividend, instead of a dead loss and a useless expenditure.



Every town and village in Britain, there is no exception, which has been enlightened enough and public spirited enough, has had ample proof of its wisdom and foresight in the conversion of foul ashpit privies or ash-closets into a clean and salubrious system of water carriage.

One other objection invariably used against the water carriage system is its liability to freeze. In your own district there are several small blocks of buildings provided throughout with water closets, yet one never hears of freezing to any great inconvenience, nor yet for a lengthened period.

The blocks of buildings provided with water closets in your district are the Council's houses at New Washington (50), Oxclose Terrace (26 houses) not an aristocratic terrace, Emmerson Terrace, Washington Station (28 houses), Hillthorn Terrace (8 houses), and many isolated houses. Then again, as to the misuse of closets and the choking of pipes from improper articles placed in the closet. I admit choking will occur, but, not to any great extent, no more in your district than in towns, and the whole edifice rests on efficient supervision and education, and I am sure that the vast majority of our working classes are as anxious and willing to protect the closets and their apparatus, and as anxious for their comfort as any class of people one comes across. There are altogether nearly 1,100 water closets in your district, yet there are fewer nuisances attaching to them than to an equal number of privies.

The number of deaths from Diarrhœa this year totalled 134, as compared with 71 last year, and with 42 during 1909.

This gives a death-rate of 2·09 per 1,000, as compared with a death-rate of 1·11 per 1,000 last year. The rate for the administrative County is 1·77 per 1,000, and that for England and Wales is only 1·06, as near as possible only half your rate. In other words, had your district been as free as England and Wales generally from death producing organism, which are solely bred by filth, no fewer than 65 infant lives would have been saved. I wonder how one could value the loss of these 65 lives, especially when one knows that none of them should have died provided the district had enjoyed that immunity from disease which the rest of the country as a whole enjoyed.

The death-rate from diarrhœa in the 77 great towns, with their slums, their poverty and the filth which one never sees in your district, and which one cannot picture, accustomed as one is to see the homes of ease and plenty, with the open spaces around each house as one sees here, is only 1·31 per 1,000, or 62·5 per cent. of the number dying in your district.



In the townships with a population of 2,000 and upwards, the greatest death-rates were in Lumley Great (7·80), Pelton (2·46), Urpeth (2·40), and Edmondsley (2·23); and the lowest rates were in Usworth (0·88), Birtley (1·19), Lamesley (1·28), and Harraton (1·47).

### DISINFECTION OF HOUSES, ARTICLES OF CLOTHING, &c.

During the year your Council appointed a special Committee to consider the question of systematic disinfection of clothing which had been exposed to infection, and of houses in which infectious disease had appeared.

The question was very fully considered by that Committee and all the points suggesting systematic disinfection, as well as the difficulties inherent in a large district, were fully considered by the Committee. In too many cases the method at present in vogue of disinfecting houses and clothing cannot bear investigation. In many cases all that is done is a few ounces of sulphurous vapour, or a few cubic feet of vapour of formaldehyde disseminated in a room which had been more or less occupied by an infectious person. There is no penetration of a sufficient quantity of germ destroying vapour to the innermost folds of the bedding, and yet the inhabitants of that house have received from an official source a certificate of absolute freedom from infection, and it is just possible that this absolutely useless method of disinfection may do more harm than good. It may, for example, suggest to the people that as the house has been "disinfected" by the Sanitary Authority there is no need for an absolute turning about of every piece of furniture of that room, and of the scrubbing of every square inch of floor and repapering of walls and ceiling. These missed points of disinfection are, I believe, the chief portions of the efficient disinfection of a room.

In my last year's report, on page 27, I gave some figures bearing on the period when secondary cases of Scarlet Fever generally appear in an infected house, and practically all took place before the 21st day from the onset of the first case. This year's figures bear out the results of last year's figures.

The outcome of the Committee's deliberations was to follow the remarks in that report and to leave the choice of cases to be disinfected to the Medical Officer of Health.

During the year all cases of Small-pox and some houses where Phthisis had died were disinfected, and during next year this practice will be continued and extended especially as far as Phthisis is concerned.

Even in cases of Enteric Fever I have not for many years seen a second case in a house, unless infected by a previous case in the same house. There are, however, some instances where bedding has been so fouled that destruction has appeared advisable to disinfection, and this has been done.

### SCHOOLS.

With reference to notifiable infectious diseases amongst school children, advice as to the period of exclusion is given in all cases visited, and notice of the infected persons is sent to the School Medical Officer, and I understand that exclusion of scholars living in infected houses is required by that officer. Children from houses in which there is Enteric Fever are not excluded, nor are children from measles houses, provided the child in question has already had measles. I agree with the latter portion of this procedure, I am not so sure about the non-exclusion of children from Enteric Fever patients' houses. There is just a strong probability that a child may suffer from Enteric Fever, and though not quite well may be attending school, and that child I infer would be a good "carrier."

The School mentioned in my last year's report, page 29. para. 7, is still under consideration. The C.C. still appear determined to place dry closets in the School. If any place is more unfitted than another for so called dry closets it is an Elementary School. The Board and the C.C. have repeatedly pointed out the beneficial effects of a water carriage system. I have continually advocated such a system for the district in general. There is no real difficulty in providing an outfall drain to the School in question, even though that outfall would be within an Urban area, and one can hardly fathom the reasons for any health authority, especially the authority which presides over the sanitary destiny of the County of Durham, advocating for a single moment an old and obsolete system of faecal removal as the dry closet.

As I have already said, there appears to be no difficulty in arranging an outfall drain in the Urban district, especially since the school is to provide accommodation for all the children of Chester Moor, and the neighbouring houses which are within the Urban area, school accommodation for a population of nearly 1,000 people.

During the year new Schools have been opened at Beamish accommodating 450 pupils, New Lambton 400 places, Birtley (temporary) 120 places, Lumley (temporary) 144 places, Usworth Colliery 300 places, and at Fatfield, whilst the following Schools have been closed, Beamish 364 places, and New Lambton (infant) 115 places.

The Medical Inspection of the children is undertaken by the Education Authority for the County.

### WATER SUPPLY.

Speaking generally the district is very well supplied with water, nearly in all cases from public or private Water Companies. The very great mass of the houses are supplied from two Companies, viz., The Weardale and Consett Water Co., who supply an Upland Water to roughly speaking 32,300, or 50 % of the population; this is a plumbo-solvent water, but this action is counteracted by the addition of lime in the proportion of  $\frac{3}{4}$  cwt. quick lime to the million gallons of water. Newcastle and Gateshead Water Co. supply about 18,860 persons, or 29·7 per cent., with a water which is not plumbo-solvent, but which is not very hard. The Sunderland & South Shields Water Co. supply a hard non plumbo-solvent water to a little over 8,000 people, or 12·5 %, and the (private) Lambton Collieries Co. supply about 4,300 people or 6·7 per cent. of your population, with a water drawn from the same water bearing strata as do the Sunderland Co.

Little progress has been made with the giving of an improved supply to the houses in Bainsley Lane, Fugar Bar, and at Pennyfine in the parish of Lamesley.

The Washhouses (20) in the Birtley Parish have now a supply from the mains of the Newcastle & Gateshead Company.

There has not been an extra supply of water provided to the parishes of Lumley Little and Lumley Great, chiefly if not entirely due to the delay in the negotiations with the owner of the land in the neighbourhood of these townships for a site to erect a reservoir. There are probabilities that the difficulties will soon be overcome, and that a better supply will be procured before the summer now before us.

The storages provided by the Sunderland & South Shields Company and by the Lambton Collieries remain of the same adequacy as before.

During the year several samples of water from each source were submitted for bacteriological examination to the Bacteriologist of the Durham College of Medicine, and in each instance the water was found to be good and fit for potable use.

Two of the service reservoirs belonging to the Weardale and Consett Company, from which a part of your district derives its water, are situated close to public highways and are thus liable to dust pollution. I brought this condition of affairs



before the Company's engincer, and I am informed by him that the reservoirs in question will be covered in before the dry summer weather commences.

All the Companies give a constant supply.

## REMOVAL OF HOUSE REFUSE.

The scavenging in practically the whole district is done either by Contractors or in a few instances by the owners of the houses. During a part of the year the Council has scavenged the township of Burnmoor, 251 houses, by their own staff, consisting of one man and one horse. The townships of Ouston, 154 houses, and of Waldrige, 268 houses, are scavenged by the owners. In both townships the houses are nearly all owned by the Collieries and tenanted by their workmen.

In that portion of the district scavenged by contractors there are many complaints of carelessness, and that state of affairs will remain more or less acute until another system of contracting or non-contracting is adopted. If there is to be contracting, one incentive to good work is to give to one man an area sufficiently large to employ his whole time.

In small scavenging areas there is a temptation, for the contractor who may be a cartman of all work or a small farmer, to undertake as much work as he can get other than scavenging, to do that special work first and the scavenging afterwards. If a man has a sufficiently large area to keep him independent of other work, his whole energies would be devoted to the work of scavenging and the work would be better accomplished.

In the Birtley area the Inspector (Mr. Brown) says "This work (scavenging) is fairly well carried out in the Birtley, Lamesley and Urpeth parishes. Most complaints were received respecting division two of Urpeth Parish, and the Southern division of Birtley parish. It has also been necessary to complain a few times about divisions 3 (Kibblesworth), and 7 (Eighton Banks) of Lamesley parish. The work in divisions 4 (Bewick Main), and 5 (Low Fell) may be said to be done in a perfect manner."

"Ouston Parish is scavenged by the owners and is neglected at times."

In the Washington area (Mr. Wadge) the Inspector, says, "The work of scavenging is not done as well as it should be in several of the scavenging districts, and a considerable amount of supervision is necessary to secure moderate efficiency. The inefficiency results from frequent neglect, receptacles not



properly cleansed, excrement allowed to adhere to the sides, back streets not properly swept, excreta left lying about, soiled papers left to blow about, carts overfilled, and refuse therefrom falling on the roads."

"The scavenging in the parish of Burnmoor has been done by the District Council themselves for the last six months, and is done more efficient and requiring less supervision."

In the Witton Gilbert area, Mr. Swaddle reports, that "generally speaking the removal of house refuse has been fairly well attended to in the division, though notices to attend to neglected work had to be served on the contractors of Twizell, Lumley Village, Pelton and Pelton Fell, and Daisy Hill sub-divisions from time to time."

The remarks I have quoted are made year by year and point to the necessity for better methods of scavenging if your district is to emerge from its primitive state, so far as this particular plank of hygiene is concerned.

If the Council themselves undertake the scavenging, as I have previously said, the cost of scavenging may be higher, as I believe it will be, but not I believe to such an extent as it is computed to be, provided areas be grouped irrespective of parishes, and a thorough supervision exercised over the feeding and care of the live stock and care of the rolling stock. There can be, and often is, a waste in respect of this factor of cost, if no supervision is exercised.

The state of affairs as pointed out by Mr. Wadge could equally be applied to the other districts so far as they relate to overfilling of carts, with the subsequent dropping of excretal matter on the roads, the blowing of excretal dust about the streets and roads, and especially the blowing everywhere of papers covered with excretal matters.

Covered carts should be used, and it is hardly likely that a contractor who has only a limited certain engagement will provide himself with covered carts.

The chief points of inefficiency which I have mentioned in the above paragraph have appeared in my previous reports, but we jog on just as before. An increased death roll from diarrhoea is due to anything save inefficient scavenging. But inefficient scavenging is probably the chief item of removal causes which influence the incidence of epidemic diarrhoea, but inefficient scavenging does not mean only inefficient removal of excretal matters, but also means hoarding up of such excretal substances.

The time of day of scavenging is also an important factor to be considered. One admits that in a rural district where every road is not lighted, that there may be a difficulty in reaching the tips unless by day. All the main roads are now lighted though the field roads are not.

During the Summer months at least, from April to October, that period of the year which is driest and when dusty ash-closets are most often seen, when fæcal matter is most productive of disease, and when there is no deficiency of light after 3 a.m., there does not appear to me to be any difficulty of scavenging during the night. During these months all emptying of ashpits might cease at 8 a.m. There is another reason for this proposal. It will be observed that during the period of the year mentioned the nights are generally calm, that the wind begins to rise about 6 a.m. and increasing for a shorter or longer time remains fairly high until evening, when the usual nightly calm arrives. If the scavenging were done during the calm period of the 24 hours there would be much less chance of infected dust getting transferred from the ashpit to the pantry.

The question of "tips" is another very important matter in efficient scavenging. It matters not if the excreta is carefully removed from an area, if these matters be carelessly dumped in another area, probably not far from houses. This is, I am afraid, the rule in your district and not the exception. The agreement with the contractors provides for them finding the tip, and it is quite well recognised that many tips are in places altogether unsuitable and that during the year frequent complaints have arisen from improperly situated tips.

The subject is being considered by your Health Committee and one fervently hopes that a solution will be found, and that the tips will be relegated to much more suitable places than now. It may be that other means will be required to be adopted to get rid of the ashpit cleanings, and that ordinary tips be abolished. This brings us face to face with a destructor, an expensive means of overcoming the difficulty. Another means suitable for your Usworth—Fatfield area is carrying the refuse to sea. You have a tidal river with sufficient depth of water at certain periods of the day by which the refuse of a considerable area could be transported to sea. This would also be much more expensive than the present system, but there would not be any comparison between the two as to better results. Probably there may be a means found for disposal of the excreta infinitely better than the present and yet much cheaper than by a destructor or transportation to sea. In considering the proper disposal of refuse from privies, &c., the question of water carriage holds an important position. Non-excretal house

refuse may be tipped almost anywhere without nuisance or danger, but not so house refuse mixed with human excreta.

The following table gives the cost of scavenging for the year 1911, with the approximate cost per house for the year :—

TOWNSHIP.	GROSS COST PER ANNUM.			APPROXIMATE COST IN PENCE PER HOUSE PER ANNUM.	
	£	s.	d.		d.
Birtley (2) .....	577	10	9	..	82·5
Burnmoor .....				..	
Coeken (1) .....	13	18	0	..	96·0
Edmondsley (3) .....	186	9	0	..	95·2
Harraton (4) .....	283	5	5	..	99·5
Lambton (1) .....	15	10	0	..	120·0
Lamesley (8) .....	472	1	4	..	84·1
Lumley Great (3) .....	132	17	0	..	68·4
Lumley Little (1) .....	92	19	3	..	84·0
Pelton (3) .....	699	12	5	..	93·3
Plawsworth (1) .....	116	14	0	..	96·0
Urpeth (2) .....	229	3	0	..	74·1
Usworth (4) .....	467	8	6	..	74·3
Washington (5) .....	545	2	2	..	85·1
Witton Gilbert (4) .....	648	2	7	..	90·6

The figures in brackets represent the number of scavenging areas in the township.

#### SANITARY IMPROVEMENTS ACCOMPLISHED DURING THE YEAR, AND REQUIRED IN THE NEAR FUTURE.

A considerable number of improvements have been accomplished during the year under review.

The Sanitary Inspectors have worked hard and much good has been the result of their labours. The owners of insanitary property have been met and the necessary improvements pointed out and discussed with most favourable results.

Insanitary property abounds in the district, and the difficulties of housing present, in many instances, an almost unsuperable barrier to the closing of houses obviously unfit for human habitation. Nor would it be policy on the part of your Council to proceed to the closure of insanitary property pell mell for many reasons. If however steady and forward action is taken in the future as in the past, a great improvement in house conditions will be seen in the near future without inflicting injury or hardship on anyone.



## BARMSTON.

This township of about 100 houses is in as good a condition as it could be made if one excepts a few scattered houses. The bulk of the houses here, viz., Pattinson Town, have been so completely repaired and renovated as to constitute them almost new houses, but all this work was completed before the year commenced.

One house in this township has been pulled down and rebuilt. The cottages at High Barmston Farm require considerable repairing.

## BIRTLEY.

A goodly number of improvements have been carried out in this township.

At Napier Terrace, Birtley, 7 pairs of back to back houses have been made into 7 through houses of 4 rooms each. At the same terrace the old privy ashpits have been replaced by ash-closets.

At Keeper's Row (7 houses), Warwick Square (40 houses), Triune Cottages (6 houses), St. John's Place (18 houses), and East Terrace (6 houses), all in Birtley, have had asphalt pavements both front and back provided during the year, whilst all the houses have been generally repaired. All this above-mentioned property belongs to the Birtley Iron & Coal Company. Many insanitary ashpit privies, some of the ashpits being open, still exist and require replacing by water closets. Open ashpit privies are a serious and offensive nuisance, and it is to the profit of the owner to provide water closets in lieu thereof, much in preference to ash-closets which by experience have been found not to provide the amenity from nuisance which at first they were supposed to do.

In the same township, at Brown's Buildings, is a number of very poor houses, many of which have damp walls and all have low poorly ventilated attics devoid of fire places. These houses should either be closed or raised, and means taken to prevent dampness of the walls.

A further batch of streets in Birtley will soon be made good under the provisions of the Private Streets Works Act.

In addition to the above improvements in the parish, the following have also been accomplished, 77 areas in lieu of a back yard have been paved, 10 yards concreted, 12 floors laid in concrete, water supply improved to 41 houses, 8 back to back houses made through houses, one house closed as unfit for habitation, and 21 new drains provided.



## BURNMOOR.

The work of demolishing some of the old and done houses in this parish at New Lambton has been continued during the year. At Chapel Row 15 houses have been pulled down and new houses built in their stead. The yards of these new houses have been all conereted, new drains and ash-closets provided. The old houses were provided with ashpit privies.

At Railway Terrae, same village, the sites of some of the houses have been covered with conerete, the space below the floors ventilated, and water closets have been substituted for ashpit privies or ash-closets. The improvements mentioned have been done by the Lambton Collieries Co., Ltd.

At the Elementary School of Burnmoor the old and generally very foul privies have been pulled down and a water earriage system introduced.

There are still a fair number of poor houses in this township, especially at Burnmoor Village.

## COCKEN.

In this small township of 23 houses there is not a great scope for recording improvements which in the year amount to one yard being cemented.

## EDMONDSLEY.

The streets of the village of Edmondsley remain in the same condition as mentioned in my last year's report.

One house rebuilt, 2 floors laid in cement, and 21 ash-closets built in lieu of ashpit privies, are the improvements in this township during the year.

The houses known as Watson's Buildings are now demolished.

## HARRATON.

This is a township of old houses and certainly a large number are unfit for human habitation. These are chiefly situated at The Square, Fatfield, but there are other houses of a similar class in this village, and at Biddiek Row (17 houses), Trafalgar Row (8 houses), Vigo, Nova Scotia, and other isolated houses.

Eleven houses have been closed during the year, viz., Chapel Row, Portobello (3), Cut House (1), Burns (1), Ferryboat Cottage (1), Chatershaugh (1), all at Fatfield; Low Flats (1), and North Biddiek (3).

In my last year's report I mentioned the Low Flats. The owners carefully examined these houses and found that the expense of making them good houses was not warranted, and agreed to close them by the middle of 1912. Certain unfortunate circumstances have supervened in the meantime which will probably delay the closing by the agreed date, but some are now closed and the others will follow.

The streets in Fatfield Village are in the same unmade condition as in the past, but the Lambton Collieries Co. have agreed to make these streets good to the specification of the Highway Surveyor, and I hope to be in a position to say in my next report that the work has been undertaken during the year.

#### LAMESLEY.

In the Village of Kibblesworth the rebuilding of the South side of the Square has been continued during the year, and eight houses have been so attended to, and re-occupied. This work has been done by the Colliery Owners, viz., Messrs. John Bowes & Partners.

At Bewick Main Colliery, the property of the Birtley Iron & Coal Co., many general repairs have been done during the year, consisting of 24 floors laid in concrete to replace floors laid in quarls, which generally means a damp floor, 11 step ladders removed and proper staircases substituted. With the exception of 5 quarl floors and five step ladders all the houses in the Village (86), are provided with good floors and stairs. These few floors will, I am sure, be altered within a very short period.

The South-Eastern portion of Eighton Banks has now been sewered, which has permitted 21 houses to be efficiently drained. This sewer practically completes the sewerage of the whole of Lamesley township.

There have also been provided 20 water closets and 24 ash-closets in places where previously insanitary conveniences existed.

There have been a good number of houses generally repaired, newly spouted (26), new drains laid (41), and other repairs of a minor but necessary nature. Eight houses have been closed at The Causey (3), Galloping Green Road (2), Robson's Buildings (2), and Swan Pond (1), all at Eighton Banks.

There are many improvements waiting to be carried out, such as the properly making of the streets at Chowdene and Eighton Banks, the latter are now under consideration and will, I believe, soon be undertaken.

## LUMLEY GREAT.

A large number of old houses exist in this township, generally they are unfit for human habitation owing to dampness and faulty construction. Most of these houses are the property of the Lambton Collieries, Ltd. None of these old houses have been rebuilt this year, but they require to be so.

It is worthy of note that the diarrhœa death-rate in this township and the infant death-rate have been enormous this year, and one cannot hide the fact that old dilapidated houses with imperfect means of storing food must be more likely to give an impetus to such a disease as epidemic diarrhœa than to check it. New houses fit to live in are urgently required in this township.

Some work has been accomplished in the township in the construction of 4 water closets, 28 ash-closets, and 12 new drains. Two houses have been improved and 6 houses closed, at Paradise (1), Pottery Row (1), and Old Hall (4).

The sewerage system is not by any means good, though there is no nuisance arising from the sewers at the present time. The disposal of the sewage is not by means of works.

## LUMLEY LITTLE.

There is little to report in this small township. Two old houses at Houghton Gate have been pulled down and rebuilt by the Lambton Collieries, Ltd. One house has been closed, and four ash-closets have replaced as many ashpit privies.

At the Sixth Pit there is a number of ashpit privies far removed from the houses. These should be replaced by water-closets, which should be erected within reasonable distance of the house. Sanitary conveniences erected 60—70 yards from a house cannot be used by the sick, so that in far too many instances invalids, not confined to bed, are perforce compelled to use their small rooms for purposes which should be accomplished outside the living room or the bedroom.

## OUSTON.

With a few exceptions all the sanitary conveniences in this village, open ashpit privies, remain in the same state as reported in my last year's report. On the site of nine old houses at Ouston Square, the property of the Birtley Iron & Coal Co., 12 new houses have been erected.



At parts of the village of Ouston the spouts have been generally repaired, and one very damp wall has been remedied. The owners have been strongly urged to provide every house in this village with an enclosed back yard and water closet, but up to the present have refused to proceed to improve on these lines, although a promise has been given to replace the ashpit privies with ash-closets. At Ewe Hill the same conditions exist as did at the end of last year, but I understand improvements to the outoffices are contemplated. The four houses at the east end of this row of houses are in such a condition as requires to be remedied by closing only.

### PELTON.

This large township affords much scope for improvement and considerable improvement has taken place during the year.

Club Row and Bloomfield Terrace have now been sewered and most of the houses efficiently drained into the new sewer. A site for sewage purification works for this part of the township, High Newfield and Pelton Village, has been secured, and work will be commenced within a reasonable time.

Many houses in this township have been inspected under the provisions of the Housing and Town Planning Act of 1909, and many improvements carried out, especially at Club Row, Pelton Fell. In the township, 3 water closets have replaced insanitary conveniences, 70 ash-closets have been built, 137 yards cemented especially at Perkinsville, 122 house floors cemented in place of in most cases damp quarls, the bulk of these floors were in Perkinsville, the property of the Birtley Iron & Coal Co., inside water taps have been provided for 12 houses, 14 drains laid, 2 houses improved, 5 houses closed, viz., at West Pelton (1), Pelton (3), and Club Row, Pelton Fell (1), and 77 houses have been built and occupied during the year.

The scarcity of houses in this parish is very much marked. There are 7 colliery shafts situated either within the parish or near its borders, and the great mass of the workers there should have Pelton parish as their residence, so far as nearness to work is concerned. There are certainly tenants for any number of houses up to or even over 200. There are besides a number of back-to-back houses and houses of poor construction within the parish, which should be closed, and I am well within the mark when I put these insanitary houses at 100, so one sees readily that there is marked need of some one building houses in this township. This question will shortly be considered by a Committee, and one trusts that means will be taken to provide many houses in this township.



Before leaving this township I must draw your Council's attention to the high infant death-rate which is always seen in the statistics for this township. During the seven years 1905-1911, Pelton Township has had six times the highest or next the highest infant death-rate, whilst in the seventh year it stood fourth. The average infant death-rate for your district during these seven years has been 163·0 per 1,000 born, and in Pelton the same death-rate has been 200·7 per 1,000 born.

The chief requirements in this township, in addition to an increased number of houses, are the completion of the sewerage scheme for the South-Eastern portion, viz., that portion at Pelton Fell and the completion of purification works, the closing of many insanitary houses and the substitution of the water carriage system instead of the present conservancy system with the privy ash-pits or ash-closets, always foul, offensive, and disease producing foci.

#### PLAWSWORTH.

At Nettlesworth Village, the property of the Sacriston & Charlaw Coal Co., a large amount of important improvement work has been carried out during the year. Seven houses in Front Row have been rebuilt. They are now good four roomed houses, the upper rooms being of sufficient height. Each one has been provided with a separate cemented back yard, and each has had its kitchen floor cemented. New ash-closets have been provided to 19 houses in this parish, chiefly at Nettlesworth, and at this village some of the streets have been improved. Further, in this parish 28 drains have been provided and 18 re-laid and improved. One house has been closed and five houses built.

#### URPETH.

There does not appear to have been much if any real improvements carried out in this township. The greater portion of the older houses in this township appertain to the collieries of Sir James Joicey & Co.

The few trifling improvements consist of water closets being erected at the Workmen's Club, 5 ash-closets at Engine Row, Beamish, and a few floors cemented at Eden Terrace North.

The houses chiefly requiring improvement are Hammer Square, Eden Square, Eden Row North (part of), Old No Place, Quality Row, and Palace Row (part of).

The open channels at Cross Rows, near Urpeth Square, still exist and these should be replaced by a proper sewer at an early date.

At Twizell Lane in this parish, 7 streets, with a lineage of 321 yards, were properly made by the estate owner to the specifications and satisfaction of the Council's Highway Surveyor.

The streets at Co-operative Villas mentioned in my last year's report, are now being properly made by your Council, under the provisions of the Private Streets Works Act.

### USWORTH.

There is no new work of any importance to mention as having been done in this township this year. The insanitary property so often mentioned in my reports continues to show its wretchedness. The houses at the West side of the Square, Taylor's Row, a part of Middle High Row, all at Usworth Colliery and all unfit for human habitation still are inhabited. There are some signs that the Council may be able to close them during the coming year.

Nothing further has been done to improve the yards at Penshaw View, Usworth Colliery, and the streets are in the same un-made condition both at this terrace and Railway Terrace. In other places in this township streets are un-made and are far from sanitary. I am pleased to say that these un-made streets are receiving attention from your Council, and are being put in proper order as quickly as your Highway Surveyor can undertake the work, for it must be remembered that this is not the only portion of your township where streets are being made or require to be made, so that the amount of constructional work falling to that department must be considerable.

Three houses have been closed during the year, viz., at Springwell (1), Middle High Row, Usworth Colliery (1), and The Old Hall, Usworth Colliery (1). Two houses have been extensively repaired (really re-constructed) at Usworth Village. At Douglas Terrace 4 roofs were repaired and 56 ash-closets practically rebuilt. 22 houses have been built in this parish during the year.

### WALDRIDGE.

During the year 3 houses have been closed in this township, viz., at the Wheel House (1), and Layfield Cottages (2), all in or near the village of Waldridge.

## WASHINGTON.

There has been a considerable amount of money spent in this township in improvements during the year. At Dame Margaret's Home, now a branch of Dr. Barnardo's Homes for Waifs and Strays, a large sum has been spent in improving the whole interior of the building in the shape of new baths, lavatories, kitchen, drains, roofs, and walls. The dormitories have been improved and made more healthy for children.

Thirteen houses have been closed, at Old Row (11) and are now pulled down, The Cottages (1) and Speculation Place (1). Two houses have been pulled down and rebuilt.

Allison's Buildings, a tenemented property of 10 tenements, in Village Lane, Washington Village, a property in a squalid condition, is being untenanted for the purpose of converting the tenements of upstairs and downstairs into single tenements of 4 rooms each. The present ash-closets are to be replaced by water closets and the building generally repaired.

A better supply of water, with inside taps, for Granary Row, Wood Row, and Brandy Row, Washington Colliery, is now being laid on. During the year there have been 23 water closets, 15 of which are at Dame Margaret's Home, provided, 19 ash-closets built and 20 ashpit privies abolished.

The insanitary privy ashpits continue at Shafto Terrace and the roadway has not been improved. Several streets, 37 in number, with a linear measurement of 2,081 yards, have been made in this township, chiefly at Washington Station, during the year under review.

Other streets are about to be scheduled and proceeded with at an early date.

Many of the really bad houses have now disappeared from this township, such as the Old Row (36), The Cottages (43), and many others scattered throughout the parish at Engine Pit, Mill Pit, Washington Staiths, but there are many more ready to share the same fate, such as the Old Hall and some of the Cottages (13), The Brickyard (3), a few at the Staiths, and others scattered in the township. Though many houses have been built there continues a scarcity of accommodation.

Your Council are about to build 42 houses in Spout Lane in this parish. All the preliminaries have been got through, and probably by March or April the building will have commenced.



## WITTON GILBERT.

In this township 1 house has been closed and 6 re-constructed, whilst 55 houses have been built during the year. Other work has also been undertaken for the purpose of sanitary improvements, viz., 13 water closets have been provided, 26 ash-closets built, 20 yards cemented, 8 floors laid in cement, and 47 drains either newly made or re-constructed.

This is a township of partly old houses as at Witton Gilbert Village and the Cross Streets at Sacriston, but the greater portion of the houses in this township are new or modern. The chief blot in this township are the unmade roads in connexion with the greater bulk of the new houses. In 1910 the Local Committee considered the condition of the streets after having carefully inspected them, and resolved to recommend that they be made up under the provisions of the Private Streets Works Act. This resolution your Council referred to the Committee for further consideration. Their further labours ended in a resolution to notify the many different owners of the need of improvement and to ascertain their views on the question of improvement. As experience has taught one, the results of this referendum has been unsatisfactory, and your Committee is about to consider for the third time the means of procedure with these streets. There is however only one way to proceed, and that way is to treat the owners here on the same principle as your Council have dealt with owners of un-made streets in all the other parts (save one) of your district. Make the streets under the provisions of the Private Streets Works Act and then they will be made satisfactory, but not by any other means.

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The following is a summary of the work done in the district outside those accomplished under the provisions of the Housing Act of 1909. These improvements have been all got by negotiations with the different owners.

Many yards of new sewers have been laid ; 287 ash-closets and 59 water closets built ; 226 back yards cemented ; 178 floors laid in concrete ; 72 houses substantially repaired ; 55 houses rebuilt ; 80 houses permanently closed as unfit for human habitation ; and 2,431 lineal yards of streets have been properly made under the provisions of the Private Streets Works Act.

## DAIRIES AND COWSHEDS.

The number of dairies and cowsheds remain at about the same number as in former years.

They have been regularly visited, and were found on the whole to be in a good state. In several instances lime washing



had been neglected, and in a few cases minor repairs have been effected such as better lighting and ventilation, floors concreted and drained, and two cowsheds have been rebuilt.

Many of the byres are old and not up to the requirements of the present ideas of a pure milk producing building. The poor byres might to some extent be discounted if there were any means available, other than moral which does not mean much, to enforce a cleaner method in harvesting the milk. In any milk bill there should be stringent enactments as to the efficient cleaning of the udders, the debatable words, "efficiently cleansed," should not be used, because "efficient" may and does mean very different things to different persons, especially in the cleansing of cows' udders. The Act should enforce complete washing of the udders and complete drying of them. Further there should be power to compel complete removal of all sediment from the milk by centrifugal machinery. The cost of washing udders and centrifuging the milk is practically nil, and should these two things be neglected a substantial penalty with destruction of the neglected milk should be enacted. Unless and until such powers are given to a local authority, there can be little improvement expected in the cleanliness and purity of milk as it comes from the cow, or rather I should say as it comes from the deep parts of the udders of the cows.

### COMMON LODGING HOUSES.

There is only one common lodging house in your district, and it is in Birtley. It is a small house (24 beds), not adapted for the purpose for which it is used. It has been regularly inspected. On two occasions at midnight the Inspector of Nuisances (Mr. Brown) found contravention, to a slight degree, of your Council's bye-laws, but generally speaking the house has been conducted well enough during the year.

### SLAUGHTER HOUSES.

The number and condition continue much the same as when I reported last on these places.

There is no systematic inspection of meat at the slaughter houses, due to the irregularity of killing, so far as time is concerned. Many of the older ones and even the newer ones could be much improved structurally. There are required more stringent bye-laws as to licensing and registration.

When inspected they have generally been found clean.

### CONDITIONS UNDER WHICH FOOD IS SOLD.

The inspections necessary to give in detail the conditions in which foods, other than milk, are produced and sold within

the district, have not been able to be made, owing to pressure of other work. There are, however, in the district many small shops which should cease to exist. These are in ordinary houses of two or three rooms. Generally the kitchen is the shop, and the materials sold are sweets, bread, cakes, and small draperies. The kitchen is invariably the living room, often the washhouse, and frequently the bedroom, so one cannot say that the articles of food sold in these houses are sold under conditions anything but unfavourable to health. I consider that all these shops should be prohibited for health reasons if nothing else. Besides, there cannot be any hardship on the occupiers of these shops by prohibiting their use, because it is impossible that any profit accrues taking one month's working with another.

### POLLUTION OF STREAMS.

The pollution of streams by your Council's sewage within your district is not serious, and the pollution is lessening year by year. None of the streams now polluted are potable, many of them being loaded with water pumped from the different Collieries, and all are devoid of fish, the Wear excluded.

Most of the pollutions are being considered and schemes sanctioned by which the pollutions will be removed. The Cong Burn is polluted by the sewage of Pelton and part of Pelton Fell. In a short time works will be commenced to deal with this sewage and send a chemically good water into the Cong. The Cong is quite yellow from clayey water pumped into it from the Collieries, and by this clay it is a stream which cannot support animal life.

Beamish and Pitt Hill pour their sewage into the Beamish Burn. In this case your Council have agreed to remove the pollution by the erection of suitable purification works.

Bewick Main Colliery and Kibblesworth, a little over 200 houses in all, pollute the Rowlitch Burn. Nothing has been decided respecting these two places.

Nettlesworth and Plawsworth pour their sewage into the Blackdene Burn. In this instance the stream is chiefly water full of iron in solution pumped from Collieries, which prevents any pollution from being observed.

In none of the instances mentioned is there any visual pollution, and certainly there is no nuisance produced.

Witton Gilbert Village pours its sewage into the Browney. In this instance works are about to be commenced to treat the sewage in such a way as to produce an effluent of sufficient purity as would meet the requirements of any Rivers' Board.

The whole of the sewage from the Eastern portion of your district, from Lumley on the South to Barmston on the North, pours its sewage into the tidal Wear. This is by agreement with the County Council after a lengthy enquiry a few years ago by one of the Inspectors of the Board.

### CLOSET ACCOMMODATION IN THE DISTRICT.

The following table gives the accommodation in the district. A privy means also an ashpit, though in some cases more than one privy empties into one ashpit. In some cases the ashbins are given. In some cases there is an ashpit in connection with a water closet. This happens generally where a conversion of an ordinary convenience into a water closet has been effected. The ashpit in those cases is used for dry ash and probably some vegetable matter and is never offensive or dangerous to the health of the household.

The list is not quite complete this year, but will be completed during the coming year. The other "occupied buildings" include work places, workshops, schools, churches, and places of amusement.

Township.	Number of dwelling houses and other occupied b'ldings.	Closet Accommodation.				Refuse.	
		W.C.	E.Cs.	A.Cs.	Privs.	Ash-pits.	Ash-bins.
Barmston .....	100		..	..	..	..	..
Biddick, South .....	16	10	..	6	5	..	..
Birtley .....	1706	339	..	1081	377	..	..
Burnmoor .....	265	6	..	101	161	..	..
Cocken .....	35	3	..	25	6	4	..
Edmondsley .....	463	5	..	273	161	191	..
Harraton .....	672	20	..	475	147	..	..
Lambton .....	31	4	..	14	13	..	..
Lamesley .....	1370	196	..	762	434	..	..
Lumley, Great .....	455	2	1	286	106	55	..
Lumley, Little .....	320	..	..	282	34	..	..
Ouston .....	177	21	..	63	110	..	..
Pelton .....	1782	116	..	1110	383	283	30
Plawsworth .....	287	10	..	97	155	75	..
Urpeth .....	743	71	..	369	321	..	..
Usworth.....	1505	..	..	..	..	..	..
Waldridge .....	286	..	..	270	16	10	..
Washington.....	1527	..	..	..	..	..	..
Witton Gilbert ....	1589	96	6	923	539	309	33
Total ...	13329	899	7	6137	2968	837	63



## UNHEALTHY DWELLINGS.

Of a necessity there must be a considerable number of poor houses in this district of so many very old houses, though the number is lessening year by year. A very large number of houses have been inspected under the provisions of the Housing, &c., Act of 1909, the results of which are shown on Appendix A. Many houses have been repaired and rebuilt, and 24 new houses have been provided by the Birtley Iron & Coal Co. The dearth of houses is most acute and though your Council has determined to build 42<sup>1</sup> houses in the parish of Washington, and 58<sup>2</sup> in the parish of Usworth, the congestion will only be relieved to a very small degree. The dearth of houses is so great that hundreds of working men are compelled to walk long distances to their work. This can neither be beneficial to the employer nor can it conduce to the well-being of the workman, or to comfort of his family. A long distance from one's work means lost time, much above the average, owing to the inclemency of the weather and to a diminution of a man's output of work owing to a lessened energy at the time he commences work. A man who has to walk 3 to 5 miles to his work and as many when he has finished does more than a day's ordinary work every day, and his system must pay the penalty, and does pay the penalty. What does that mean? It means early old age and probably it means that the rates have to provide a greater sum to support the feeble and prematurely old than in more happily housed conditions they would be called upon to do.

The Parish of Pelton suffers much from a dearth of houses which may be accentuated in the near future. In this parish there is quite a large number of back-to-back houses of two rooms only, though in most instances the upper room has been divided into two for the better separation of the sexes. These upstairs rooms are low, poorly lighted, unheated and really there is as little comfort to be got in these houses as one could imagine. In case of illness in winter time, the kitchen is the only room in which a patient can be placed. The small kitchen is thus the living room, washhouse and sick room. This is not a condition of affairs to produce healthy or contented people, nor yet to improve the morals of the young. In every house there should be at least two rooms provided with fire places.

The mere bald figures adduced from deaths are not true indices of the fitness of a house for the housing and propagation

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<sup>1</sup> The contract for these houses has been signed by the builder and the houses are about to be commenced.

<sup>2</sup> The plans for these houses are now at the offices of the Local Government Board.



of a healthy race. One must go further, the sickness rate must be taken into account, and the sickness rate is difficult to arrive at in ordinary conditions.

Many, indeed, most of the worst houses in the district remain in the same state as formerly, though a few have been closed. Biddiek Row (17 houses) is in the same state as last year, but negotiations are being conducted with the owner which will lead to closing or rebuilding. The Low Flats (11 houses) are to be closed within a few months, 3 are now closed. All the remaining 6 houses at the Old Row, Washington, have been closed, 3 have been closed in the Middle High Row, Usworth Colliery, and I hope more in that Row and in Taylor's Row, the West side of the Square at the same place, will be closed when the 58 houses about to be built by your Council are erected.

Houses are urgently required in the parish of Pelton, and your Council are now considering the matter.

The following table gives approximately the number of houses built and occupied during the year and the number of houses closed as unfit for human habitation during the year.

TOWNSHIP.	NO. OF HOUSES BUILT AND OCCUPIED.	NO. OF HOUSES CLOSED.
Barmston .....	1	1
Biddiek, South .....	4	..
Birtley .....	27	9 <sup>3</sup>
Burnmoor .....	15	15
Coeken .....	..	..
Edmondsley .....	..	..
Harraton .....	10	11
Lambton .....	..	..
Lamesley .....	63	8
Lumley, Great .....	1	6
Lumley, Little .....	100	2
Ouston .....	12	..
Pelton .....	77	5
Plawsworth .....	5	1
Urpeth .....	22	..
Usworth.....	22	3
Waldridge .....	..	3
Washington.....	37	15
Witton Gilbert .....	55	1
	451	80

<sup>3</sup> Of these, 8 were back-to-back, and made through houses.

Of the total number closed, 72 were actually removed from habitation, the remaining 8 were previously 8 pairs of back-to-back houses converted into through houses. They are occupied but their conversion reduces the number of separate tenements. In something like a score of cases, new houses have been erected on the site of the old houses pulled down.

During the past five years about 475 houses have gone out of occupation owing to their unfitness for human habitation.

The number of inspections (and their results) which have been made by the Sanitary Inspectors under the provisions of the Housing and Town Planning Act of 1909, are given in Appendix A.

The inspections under this Act have been actively carried out, and a huge number of improvements promised and effected. Of a necessity the improvements are apparently slow in being accomplished, but when one considers the enormous amount of poor property in your district, and even good property which has been neglected, and further the unwillingness of many, and the inability of some to spend money, one is not astonished at the apparent slowness of progress.

Another probable cause of slowness in the property owner moving to carry out improvements, is that in the past many attempts at improvements though made, were allowed to slide, when opposed by a sort of inertia on the part of the owner. No refusal was made, but at the same time nothing was done, and time came to the rescue of the owner, with the result that he was freed from any expense. Now this idea that what was done in the past will be done in the future is fallacious, but will take some time to dissipate from the minds of the unwilling owners. On the other hand many owners in the past willingly and readily improved their property, when its shortcomings were pointed out to them.

The fact that all inspected property is now registered is a guarantee that it will not be lost sight of in the mass of other work which falls to the Sanitary Officer.

The results of the inspections made under this Act are considered by your Health Committee every month, and decisions as to future action resolved upon.

## THE HOSPITAL.

During the year 110 patients were admitted as compared with 70 last year. Of these, 104 belonged to your district, and 6 were from the Urban district of Chester-le-Street. Of these 110 patients, 36 were admitted as suffering from Scarlet Fever. In two cases the patient did not appear to have Scarlet Fever but was evidently suffering from Diphtheria, and the after course of the disease fully confirmed this diagnosis. Thirty-two were admitted as suffering from Diphtheria and in all cases the diagnosis was correct, and 42 were admitted as suffering from Enteric Fever, and in all cases save one the diagnosis was correct. The single case was one of tuberculosis.

Taking all cases of Scarlet Fever notified in your districts there was 23·0 per cent. admitted to the hospital, as compared with 20·6 per cent. last year; of Diphtheria there was admitted 33·7 per cent., as compared with 5·6 per cent., and of Enteric Fever there was 68·2 per cent. admitted, as compared with 89·2 per cent. last year. Taking these three diseases, with all diseases notified, there was admitted to the Hospital 27·7 per cent., as compared with 19·5 per cent. last year, and with 17·0 per cent. during the previous year.

The number of cases discharged during the year were 22 cases of Scarlet Fever, 33 cases of Enteric Fever, and 23 cases of Diphtheria.

Two patients died of Scarlet Fever, 2 patients from Diphtheria, and 7 from Enteric Fever. The case mortality from Scarlet Fever was 5·5 per cent. of admissions, from Diphtheria 6·25 per cent. of admissions, and from Enteric Fever 16·66 per cent. of admissions.

For Scarlet Fever patients the average number of days residence was 53·17 days, as compared with 58·38 days last year; for Enteric Fever the average residence was 61·91 days as compared with 68·95 days last year; and for Diphtheria 39·82 days; as compared with 22 days last year.

The average number of patients daily resident throughout the year was 13·64 as compared with 12·35 last year.

AVERAGE NUMBER OF  
PATIENTS DAILY RESIDENT.

First Quarter .....	5·70
Second „ .....	10·20
Third „ .....	22·17
Fourth „ .....	13·64

The following table gives the number of cases admitted to the Hospital since July, 1895, and other details :—

YEAR.		NO. OF PATIENTS ADMITTED.		AVERAGE NO. DAILY RESIDENT.		NO. OF DEATHS.		PERCENTAGE OF DEATHS TO ADMISSIONS.
1895	....	37	....	9.00	....	0	....	0.00
1896	....	121	....	15.30	....	3	....	2.48
1897	....	53	....	9.58	....	2	....	3.77
1898	....	104	....	14.17	....	3	....	2.88
1899	....	136	....	20.22	....	10	....	7.35
1900	....	116	....	18.35	....	4	....	3.44
1901	....	115	....	16.05	....	8	....	6.97
1902	....	104	....	13.65	....	8	....	7.69
1903	....	133	....	17.41	....	6	....	4.51
1904	....	56	....	5.25	....	2	....	3.57
1905	....	1	....	0.00	....	0	....	0.00
1906	....	53	....	6.76	....	2	....	3.92
1907	....	43	....	5.70	....	2	....	4.65
1908	....	124	....	18.23	....	11	....	8.87
1909	....	123	....	22.80	....	6	....	4.87
1910	....	70	....	12.35	....	5	....	7.01
1911	....	110	....	13.64	....	11	....	10.00
		<hr/>		<hr/>		<hr/>		<hr/>
		1499		12.85		83		5.53

On the last day of the year there remained in the hospital 4 cases of Enteric Fever, 14 cases of Scarlet Fever, and 7 cases of Diphtheria.

Although for nearly half the year there were treated 3 different infectious diseases in your two pavilions, there was no case of cross infection. Nor yet was there any return case during the year.

My experience is that there is absolutely no danger of cross infection through the agency of the nurses, provided their uniform is frequently disinfected, but not oftener than once a week, nor yet does there appear to be any danger of infection spreading from one ward of a pavilion to the other ward of the same pavilion, if the ward is freely ventilated. The different diseases must, however, be carefully kept apart when the children are able to be in the grounds. The danger of infection lies in close contact, and in the interchange of infected bedding, probably chiefly Scarlet Fever infected bedding.

From my preceding remarks it is obvious that your Hospital accommodation is not equal to the demands made upon it. This is especially observed in the late Summer and Autumn when



the seasonal excess of Enteric Fever appears. During the year under review, from the month of August to the beginning of November, or during 3 months, only Enteric Fever could be admitted, and for several days oftener than once it would have been impossible to have admitted another case of Enteric even.

In addition to the insufficiency so far as the number of beds are concerned, there are at present no means of isolating a case of mixed infection, for example, a case where there is Scarlet Fever and Diphtheria, or in cases where the diagnosis of the disease is uncertain.

Your Council are considering the plan of a pavilion which if accepted<sup>4</sup> would increase the accommodation by 12 beds, and since the pavilion is divided into cubicles or more properly into two wards of 6 small wards each, the difficulty of dealing with mixed infection and with doubtful cases would be got over.

In addition to the insufficiency of the ward accommodation, the administrative block has been found too small in so far as bedrooms are concerned, and your Council has accepted a tender<sup>5</sup> for the addition of three bedrooms to that part of your Hospital.

If all these proposed additions are made, I am sure your Hospital will be sufficiently large to meet all ordinary demands for years to come, unless the habitual or ordinary requirements increase in number, and of that there is not much sign in the meantime.

### FACTORY AND WORKSHOPS ACT.

All the Factories and Workshops have been regularly inspected, and there has not been found anything serious to complain about. The number of inspections and the results are given in the different tables of inspection, and notices served by the inspectors as shown in the Appendices.

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<sup>4</sup> The plans have been agreed to by your Council and are now at the offices of the L.G.B. for their approval or rejection.

<sup>5</sup> The work has commenced.

TABLE I.

## CHESTER-LE-STREET RURAL DISTRICT.

Vital Statistics of Whole District during 1911 and previous Years.

Year.	Population estimated to Middle of each Year.	Births.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Births	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906.....	70,884	2,589	2,589	36.52	1,169	16.49	7	14	422	163.0	1,176	16.59
1907.....	72,911	2,534	2,534	34.75	1,189	16.31	....	10	376	148.3	1,199	16.44
1908.....	74,916	2,809	2,809	37.49	1,311	17.48	....	14	497	176.5	1,325	17.67
1909.....	62,739	2,361	2,361	37.63	908	14.45	....	35	332	140.6	942	15.01
1910.....	63,869	2,341	2,341	36.65	914	14.32	....	35	336	144.8	949	14.85
1911.....	63,882	2,189	2,189	34.26	994	15.56	12	62	413	188.6	1,044	16.34

Area of District in acres  
(exclusive of area covered by water). } 32,429

Total population at all ages, 63,882

Number of inhabited houses, 12,798

Average number of persons per house 4.99

At Census of  
1911.





TABLE II.  
CHESTER-LE-STREET RURAL DISTRICT.  
Cases of Infectious Diseases notified during the Year 1911.

[illegible]



**TABLE III.**  
**CHESTER-LE-STREET RURAL DISTRICT.**

Causes of, and Ages at Death during the Year 1911.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									DEATHS IN LOCALITIES AT ALL AGES.—(TOWNSHIPS).																	PUBLIC INSTITUTIONS				
	At all Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	Barnston.	Biddick, South.	Birtley.	Burnmoor.	Cocken.	Edmondsley.	Harraton.	Lambton.	Lamesley.	Lumley, Great.	Lumley, Little.	Ouston.	Pelton.	Plawsworth.	Urpeth.	Usworth.	Waldrige.	Washington.	Witton Gilbert.	Dame Margaret's Home.	Earl's House Industrial School.	Sanatorium.
Enteric Fever .....	10				1	4	4	1					3							1		1			3		2				
Small Pox .....																															
Measles .....	35	12	8	11	4							2				2		2			1	16	2	1	3	2	2	2			
Scarlet Fever .....	5	1	2	1	1																										
Whooping Cough .....	34	16	10	5	3							2		1				4	1			1			1			2			
Diphtheria and Croup .....	6	1	1	2	2							1										12	1	4			3	6			
Influenza .....	1								1													1		3				1			
Erysipelas .....	1							1								1						1									
Cerebro-Spinal Fever .....	2			1	1											1															
Typhus .....																						2									
Glanders .....																															
Anthrax .....																															
Lead Poisoning .....																															
Phthisis (Pulmonary Tuberculosis) .....	48		1	1	5	11	23	4	3	1		7		1	1	1		7		3		4		1	7		11	3			1
Tuberculous Meningitis .....	16	4	4	6	1		1					2	1					1	2			1	1	2	2			4			
Other Tuberculous Diseases .....	37	15	6	5	2	3	5	1				8			3	1		2	2	3		6		2	1	1	1	6	1		
Rheumatic Fever .....	3				1	1	1					2																			
Cancer, malignant disease .....	41				1	1	2	23	14			7	3		1	3		2				1									
Bronchitis .....	53	23	5	1	1			7	16			11	1		2	8		4	1	1	1	10		3	9		6	3			
Broncho-Pneumonia .....	76	38	15	8	4		2	5	4			8			3	4		2	2		1	10	3	6	7		20	10			
Pneumonia (all other forms) .....	47	7	5	4	2	3	7	9	10			14	1		3	3	1	2	4			3		1	7	2	4	2			
Other Diseases of Respiratory Organs .....	15	3	1	4	1		1	2	3			3				2															
Diarrhœa and Enteritis .....	134	90	27	2			2	4	9	1		10	3	1	5	5		10	17	4	1	20	1	8	17	1	15	15			
Appendicitis and Typhlitis .....	1					1						1																			
Alcoholism .....	2						1	1																							
Cirrhosis of Liver .....																								1			1				
Nephritis and Bright's Disease .....	23		2			1	5	4	11			6				1		2	1						6	1	3	3			
Puerperal Fever .....	3						3																								
Other accidents and diseases of Preg- nancy and Parturition .....	6	3				3						1			1						1				1		1				
Congenital Debility and Malformation, including Premature Birth .....	161	155	5	1						1					1			1				1					1	1			
Violent Deaths, excluding Suicide .....	44		3	2	6	8	9	13	3			6	1					6	6	2	1	35	5	10	24	3	22	15			
Suicides .....	4						2	2										5	2	2	2	10	1	1	4		6	3			
Other Defined Diseases .....	206	32	8	6	7	5	18	51	79	1		23	8		5	12	1	19	7	1	4	28	4	15	23	6	21	28			
Diseases ill-defined or unknown .....	42	13	3					2	24			3	2		1	1		4	3		2	4	1	1	5	1	5	9			
All causes .....	1050	413	106	60	43	41	86	130	177	4		134	26	4	30	50	2	76	48	17	13	172	21	64	125	19	136	113	1		1





TABLE IV.  
CHESTER-LE-STREET RURAL DISTRICT.  
INFANT MORTALITY, 1911.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under One Year.
All Causes. { Certified ..... Uncertified .....	98	14	16	11	139	63	82	72	54	410
Smallpox .....										
Chicken-pox .....										
Measles .....						1		6	5	12
Scarlet Fever .....							1			1
Diphtheria and Croup .....									1	1
Whooping Cough .....						3	4	4	5	16
Diarrhœa .....				1	1	6	37	23	17	84
Enteritis .....						2	2	1	1	6
Tuberculous Meningitis .....								4		4
Abdominal Tuberculosis .....							2	5	5	12
Other Tuberculous Diseases .....							2		1	3
Congenital Malformations .....	2	2	1	3	8	1		1		10
Premature Birth .....	47	6	5	2	60		1	1		62
Atrophy, Debility and Marasmus .....	28	3	6	2	39	22	12	5	5	83
Atelectasis .....	5				5	1				6
Injury at Birth .....	4	1			5	1				6
Erysipelas .....										
Syphilis .....										
Rickets .....									1	1
Meningitis (not Tuberculous) .....	1				1	1	2	2		6
Convulsions .....	7		1		8	4	1	1	2	16
Gastritis .....						1				1
Laryngitis .....				1	1	1	1	1		4
Bronchitis .....			2		2	10	5	5	1	23
Pneumonia (all forms) .....			1		1	9	11	13	11	45
Suffocation, overlying .....										
Other Causes .....	4	2	2	2	10		1			11

Nett Births in the year { legitimate .. 2,120  
illegitimate .. 69

Nett Deaths in the year of { legitimate infants .. 394  
illegitimate infants .. 19



## CHESTER-LE-STREET RURAL DISTRICT.

# INFANT MORTALITY, 1911.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under One Year.
All Causes. { Certified . . . . .	98	14	16	11	139	63	82	72	54	410
Uncertified . . . . .			2		2				1	3
{ Smallpox . . . . .										
{ Chicken-pox . . . . .										
{ Measles . . . . .						1		6	5	12
{ Scarlet Fever . . . . .							1			1
{ Diphtheria and Croup . . . . .									1	1
{ Whooping Cough . . . . .						3	4	4	5	16
{ Diarrhea . . . . .				1	1	6	37	23	17	84
{ Enteritis . . . . .						2	2	1	1	6
{ Tuberculous Meningitis . . . . .								4		4
{ Abdominal Tuberculosis . . . . .							2	5	5	12
{ Other Tuberculous Diseases . . . . .							2		1	3
{ Congenital Malformations . . . . .	2	2	1	3	8	1		1		10
{ Premature Birth . . . . .	47	6	5	2	60			1		62
{ Atrophy, Debility and Marasmus . . . . .	28	3	6	2	39	22	12	5	5	83
{ Atelectasis . . . . .	5				5	1				6
{ Injury at Birth . . . . .	4	1			5	1				6
{ Erysipelas . . . . .										
{ Syphilis . . . . .										
{ Rickets . . . . .									1	1
{ Meningitis (not Tuberculous) . . . . .	1				1	1	2	2		6
{ Convulsions . . . . .	7		1		8	4	1	1	2	16
{ Gastritis . . . . .						1				1
{ Laryngitis . . . . .				1	1	1	1	1		4
{ Bronchitis . . . . .			2		2	10	5	5	1	23
{ Pneumonia (all forms) . . . . .			1		1	9	11	13	11	45
{ Suffocation, overlying . . . . .										
{ Other Causes . . . . .	4	2	2	2	10		1			11

Nett Births in the year	{	legitimate ..	2,120
		illegitimate .	69

Nett Deaths in the year of	{	legitimate infants	..	394
		illegitimate infants	..	19





TABLE V.  
**UNCERTIFIED DEATHS DURING 1911.**  
 CLASSIFIED ACCORDING TO AGES AND LOCALITIES.

LOCALITIES.	At all ages.	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Over 5 years.	Percentage of uncertified to all deaths.
Barmston .....								
Biddick, South .....								
Birtley .....								
Burnmoor .....								
Cocken .....								
Edmondsley .....								
Harraton .....								
Lambton.....								
Lamesley .....								
Lumley, Great .....								
Lumley, Little .....								
Ouston .....								
Pelton .....	5	2					3	2.90
Plawsworth .....	1						1	4.76
Urpeth .....	4					1	3	6.25
Usworth .....								
Waldridge.....	2						2	10.52
Washington .....	1						1	0.73
Witton Gilbert .....	4	1					3	3.54
Dame Margaret's Home .....								
Earl's House .....								
Industrial School .....								
Totals .....	17	3				1	13	1.62

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

TABLE VII.

## SCARLET FEVER IN 1911.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....			1					1	2				4
Biddick, South .....													
Birtley .....		1					1			1		4	7
Burnmoor .....						1							1
Cocken .....											2		2
Edmondsley .....		1								1	1		3
Harraton .....				1						1	1	1	4
Lambton .....		1											1
Lamesley .....	1	3		4	1		1	1	3			3	17
Lumley, Great ....	1			3									4
Lumley, Little ....			2	2									4
Ouston .....								1					1
Pelton .....	1	1						2	9	5	9		27
Plawsworth .....				2									2
Urpeth .....	1							3	2	1	3	2	12
Usworth .....	1		2		1								4
Waldridge .....								2				1	3
Washington .....	2	2	2		2	4							12
Witton Gilbert ....		1	2	1	1	3		2	6	4	14	6	40
Dame Margaret's Home .....													
Earl's House .....													
Industrial School .....													
Totals .....	7	10	9	13	5	8	2	12	22	13	30	17	148



TABLE VIII.

## TYPHOID (ENTERIC) &amp; CONTINUED FEVERS IN 1911.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....													
Biddick, South .....													
Birtley .....									1	1			2
Burnmoor .....								3	4	2			9
Cocken .....													
Edmondsley .....													
Harraton .....	1			2	4				2	3			12
Lambton .....													
Lamesley .....		1											1
Lumley, Great .....									1				1
Lumley, Little .....									1				1
Ouston .....													
Pelton .....									2	1			3
Plawsworth .....													
Urpeth .....				1				1	1			1	4
Usworth .....			1						6	1		1	9
Waldridge .....									1				1
Washington .....			1				1		6	2	2	1	13
Witton Gilbert .....										1			1
Dame Margaret's Home .....													
Earl's House Industrial School...													
Totals ... ..	1	1	2	3	4	....	1	4	25	11	2	3	57

TABLE IX.

## DIPHTHERIA IN 1911.

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
Barmston ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Biddick, South	...	...	...	...	...	...	...	...	...	...	...	...	...
Birtley ...	1	1	...	...	...	...	1	1	1	...	...	...	5
Burnmoor ...	...	...	...	...	...	1	1	...	...	...	...	...	2
Cocken ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Edmondsley ...	...	...	...	...	...	...	...	...	...	...	...	1	1
Harraton ...	...	...	...	3	...	...	...	...	...	1	...	...	4
Lambton ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lamesley ...	...	...	1	...	1	...	...	1	...	2	1	...	6
Lumley, Great	...	2	...	...	...	...	...	...	...	...	...	...	2
Lumley, Little	...	...	...	...	...	...	...	...	...	...	...	...	...
Ouston ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pelton... ...	1	1	...	1	...	...	...	...	1	1	...	...	5
Plawsworth ...	...	...	3	...	...	...	...	...	...	...	...	...	3
Urpeth ...	...	1	...	1	4	8	1	1	3	2	11	3	35
Usworth ...	3	2	...	2	...	...	...	...	...	...	3	2	12
Waldridge ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Washington ...	...	1	...	...	...	...	...	...	...	...	...	...	1
Witton Gilbert	...	2	2	2	3	1	...	...	...	3	...	2	15
Dame Margaret's Home ...	...	...	...	...	...	1	...	...	...	...	...	...	1
Earl's House	...	...	...	...	...	...	...	...	...	...	...	...	...
Industrial School	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	5	10	6	9	8	11	3	3	5	9	15	8	92

TABLE X.  
PUERPERAL FEVER IN 1911.  
CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....													
Biddick, South .....													
Birtley .....													
Burnmoor .....													
Cocken .....													
Edmondsley .....													
Harraton .....													
Lambton.....													
Lamesley .....													
Lumley, Great .....													
Lumley, Little .....													
Ouston .....													
Pelton .....									1				1
Plawsworth .....													
Urpeth .....													
Usworth .....													
Waldridge.....													
Washington .....	1									1			1
Witton Gilbert .....													
Dame Margaret's Home .....													
Earl's House Industrial School .....													
Totals .....	1								1				2

TABLE XI  
**ERYSIPELAS IN 1911.**

CLASSIFIED ACCORDING TO LOCALITIES AND MONTHS OF THE YEAR.

LOCALITIES.	Jan.	Feb.	March	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
Barmston .....													
Biddick, South .....													
Birtley .....									1	1		1	3
Burnmoor .....			1			1							2
Cocken .....													
Edmondsley .....											1	2	3
Harraton .....	1	1	1					1		1			5
Lambton.....													
Lamesley .....	1		1		1	2							5
Lumley, Great .....													
Lumley, Little .....		1											1
Ouston .....	1												1
Pelton .....	2	3	3	2	2	2		2	1	4	2		23
Plawsworth .....									1	1			2
Urpeth .....			1			1				1		1	4
Usworth .....	2	5	1	1		1	1	1		1	3	1	17
Waldridge.....		1										1	2
Washington .....		1		1			1				1		4
Witton Gilbert .....		1									1		2
Dame Margaret's Home .....													
Earl's House Industrial School .....													
Totals .....	7	13	8	4	3	7	2	4	3	9	8	6	74



TABLE XII.

Birth-Rate, General Death Rate, Zymotic Death Rate, Diarrhœal Death Rate, and Infant Death Rate in each Township during 1911.

TOWNSHIP	Birth Rate per 1000.	General Death Rate per 1000.	Zymotic Death Rate per 1000.	Diarrhœal Death Rate per 1000.	Infantile Death Rate per 1000 born.
Barinston .....	28.45	8.13	2.03	2.03	143
Biddick, South .....	52.63	.....	.....	.....	.....
Birtley .....	33.65	15.93	1.78	1.19	159
Burnmoor .....	21.21	18.94	4.54	2.27	143
Cocken .....	47.36	21.05	1.05	0.52	333
Edmondsley .....	32.83	13.49	2.24	2.24	191
Harraton .....	29.11	14.70	2.06	1.47	141
Lambton.....	7.69	15.38	.....	.....	.....
Lamesley .....	28.57	11.61	2.51	1.28	126
Lumley, Great .....	34.45	21.59	8.26	7.80	333
Lumley, Little .....	32.28	13.72	4.03	3.22	150
Ouston .....	26.53	13.80	2.12	1.06	240
Pelton .....	39.32	21.19	6.28	2.46	254
Plawsworth .....	47.26	15.75	3.00	0.75	158
Urpeth .....	31.02	19.27	4.80	2.40	235
Usworth .....	37.69	15.52	3.04	0.88	156
Waldridge.....	35.03	15.12	2.38	0.79	45
Washington .....	35.67	17.38	2.18	1.49	218
Witton Gilbert .....	34.65	15.91	3.66	2.03	178

TABLE XIII.

POPULATION OF THE SEVERAL TOWNSHIPS IN  
THE DISTRICT.

ESTIMATED TO THE MIDDLE OF THE YEAR 1911.

TOWNSHIPS.	1911.			Popu- lation.	19			
	Number of In- habited Houses.	Popu- lation.	Average per House.		Number of In- habited Houses.	Popu- lation.	Increase.	Decrease.
							As compared with 19	
Barmston .....	100	492	4·92	.....	.....	.....	.....	
Biddick, South.....	13	57	4·38	.....	.....	.....	.....	
Birtley .....	1667	8409	5·04	.....	.....	.....	.....	
Burnmoor .....	251	1320	5·25	.....	.....	.....	.....	
Cocken .....	35	190	5·42	.....	.....	.....	.....	
Edmondsley .....	456	2223	4·87	.....	.....	.....	.....	
Harraton .....	657	3400	5·17	.....	.....	.....	.....	
Lambton.....	29	130	4·48	.....	.....	.....	.....	
Lamesley .....	1297	6370	4·91	.....	.....	.....	.....	
Lumley, Great .....	439	2177	4·95	.....	.....	.....	.....	
Lumley, Little .....	216	1239	5·73	.....	.....	.....	.....	
Ouston .....	154	942	6·11	.....	.....	.....	.....	
Pelton .....	1722	8118	4·71	.....	.....	.....	.....	
Plawsworth .....	282	1333	4·72	.....	.....	.....	.....	
Urpeth .....	702	3320	4·72	.....	.....	.....	.....	
Usworth .....	1501	7986	5·32	.....	.....	.....	.....	
Waldridge.....	268	1256	4·68	.....	.....	.....	.....	
Washington .....	1504	7821	5·20	.....	.....	.....	.....	
Witton Gilbert.....	1505	7099	4·71	.....	.....	.....	.....	
Totals .....	12,798	63,882	4·99	.....	.....	.....	.....	



TABLE XIV.  
CHESTER-LE-STREET RURAL DISTRICT.  
Cases of Enteric Fever during 1911.

No.	Date of Notification.	Name.	Age.	Sex.	Locality.	Probable Cause.	Probable connection between one case and any other.	Probable connection between the cause of one case and any other.	Water Supply Source.	Drainage.	Method of Excrement Disposal.	Manner in which Scavenging is performed.	Removed to Hospital.	Remarks.	Termination.	No.
1	21st Jan.	F. L.	11	M.	Portobello .....	Unascertainable .....	None .....	None .....	Newcastle & Gateshead	Sewer .....	Ash-closet .....	Good .....	No			
2	10th Feb.	J. A.	7	M.	Team Colliery .....	" .....	" .....	" .....	" .....	" .....	Ashpit privy .....	" .....	Yes		Recovery ..	1
3	12th Mar.	J. F.	13	M.	Havannah Terrace ..	" .....	" .....	" .....	" .....	" .....	Ash-closet .....	" .....	No		" ..	2
4	23rd "	W. B.	14	M.	New Washington .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	Yes		Fatal ..	3
5	11th Apr.	W. B.	13	M.	Urpeth Square .....	" .....	" .....	" .....	Weardale & Consett ..	" .....	" .....	" .....	No	Case of Tuberculosis ..	Recovery ..	4
6	22nd "	J. Mc.	4	F.	Fatfield .....	Probably from a carrier who had Enteric Fever in 1909 and kept a small sweetshop .....	" .....	" .....	" .....	" .....	" .....	" .....	No	Not a case of Enteric Fever ..	" ..	5
7	26th "	A. M.	13	F.	" .....	" .....	" .....	cases 7, 8, 10, 11	Herrington Well .....	" .....	" .....	" .....	" .....			6
8	2nd May	A. D.	2	F.	" .....	" .....	" .....	" 6, 8, 10, 11 ..	" .....	" .....	" .....	" .....	" .....			7
9	" "	T. C.	10	M.	" .....	" .....	" .....	" 6, 7, 10, 11 ..	" .....	" .....	" .....	" .....	" .....			8
10	5th "	T. E. C.	10	M.	" .....	" .....	" .....	" 6, 7, 8 .....	" .....	" .....	" .....	" .....	" .....	Not a case of Enteric Fever ..	" ..	9
11	" "	E. R.	9	F.	" .....	" .....	" .....	" 6, 7, 8, & 10 ..	" .....	" .....	" .....	" .....	" .....			10
12	24th July	T. E.	24	M.	Havannah Terrace ..	Unascertainable .....	" .....	None .....	Newcastle & Gateshead	" .....	" .....	" .....	Yes			11
13	16th Aug.	M. T.	17	F.	New Lambton .....	" .....	" .....	" .....	Herrington Well .....	" .....	" .....	" .....	No		Fatal ..	12
14	19th "	R. L.	20	M.	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	Yes		Recovery ..	13
15	22nd "	R. R.	19	M.	" .....	" .....	" .....	" .....	Herrington Well .....	" .....	" .....	" .....	No	Imported case .....	" ..	14
16	29th "	A. G.	28	F.	Twizell .....	" .....	" .....	" .....	Weardale & Consett ..	" .....	" .....	" .....	Yes		" ..	15
17	4th Sept.	R. R.	26	M.	Sixth Pit .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	No		" ..	16
18	5th "	M. B.	15	F.	New Washington .....	Enteric in this house 1909 ..	" .....	" .....	Newcastle & Gateshead	" .....	" .....	" .....	Yes		" ..	17
19	" "	J. W. B.	28	M.	Usworth Colliery .....	Unascertainable .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....			18
20	6th "	W. T.	23	M.	New Lambton .....	Case in same house No. 13	No. 13 .....	" .....	Herrington Well .....	" .....	" .....	" .....	" .....	Imported case .....	Fatal ..	19
21	" "	C. A.	31	F.	Burnmoor .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....			20
22	7th "	E. J. H.	22	F.	New Washington .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	Imported case .....	Recovery ..	21
23	8th "	M. R.	29	M.	Washington .....	Unascertainable .....	None .....	None .....	Sunderland .....	" .....	" .....	" .....	" .....	" ..	" ..	22
24	" "	J. L.	30	M.	Sixth Pit .....	" .....	" .....	" .....	Weardale & Consett ..	" .....	" .....	" .....	No		Fatal ..	23
25	9th "	W. S.	14	M.	Fatfield .....	Bought sweets from same shop as cases 6, 7, 8, 10 and 11 .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....			24
26	13th "	H. J.	23	M.	Washington Station	Unascertainable .....	" .....	Cases 6 to 11 .....	Herrington Well .....	" .....	" .....	" .....	Yes		Recovery ..	25
27	18th "	W. P.	17	M.	" .....	" .....	" .....	None .....	Sunderland .....	" .....	" .....	" .....	" .....		Fatal ..	26
28	" "	J. T. N.	13	M.	Birtley .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....		Recovery ..	27
29	" "	E. T.	48	F.	New Washington .....	" .....	" .....	" .....	Newcastle & Gateshead	" .....	" .....	" .....	" .....		" ..	28
30	" "	P. C.	15	M.	Usworth Colliery .....	" .....	" .....	" .....	Sunderland .....	" .....	" .....	" .....	" .....		" ..	29
31	" "	L. A.	12	F.	Washington Station	" .....	" .....	" .....	Newcastle & Gateshead	" .....	" .....	" .....	No		" ..	30
32	" "	R. W.	11	M.	" .....	" .....	" .....	" .....	Sunderland .....	" .....	" .....	" .....	Yes		" ..	31
33	" "	J. W.	31	M.	New Lambton .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....		" ..	32
34	23rd "	J. W.	30	F.	Usworth Colliery .....	" .....	" .....	" .....	Herrington Well .....	" .....	" .....	" .....	No		Fatal ..	33
35	25th "	C. B.	19	M.	" .....	Previous case in house	" .....	No. 19 .....	Newcastle & Gateshead	" .....	" .....	" .....	Yes		" ..	34
36	" "	D. T.	29	M.	Fatfield .....	Unascertainable .....	" .....	None .....	Herrington Well .....	" .....	" .....	" .....	" .....		Recovery ..	35
37	26th "	E. W.	13	M.	Waldridge .....	" .....	" .....	" .....	Weardale & Consett ..	Open channel	Ashpit privy ..	" .....	No		" ..	36
38	" "	N. M.	31	F.	Twizell .....	" .....	" .....	" .....	" .....	Sewer .....	Ash-closet .....	" .....	Yes		" ..	37
39	29th "	R. L.	31	M.	West Pelton .....	" .....	" .....	" .....	" .....	" .....	Ashpit privy ..	" .....	" .....		" ..	38
40	" "	E. J.	17	F.	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	No		Fatal ..	39
41	" "	M. T.	5	F.	New Lambton .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	Yes		Recovery ..	40
42	4th Oct.	L. P.	9	F.	New Washington .....	" .....	" .....	" .....	Herrington Well .....	" .....	Ash-closet .....	" .....	No		" ..	41
43	7th "	F. R.	17	M.	Birtley .....	" .....	" .....	" .....	Newcastle & Gateshead	" .....	" .....	" .....	No		" ..	42
44	8th "	M. W.	68	F.	Burnmoor .....	Nursed for a few days No. 21.	No. 21 .....	" .....	Herrington Well .....	" .....	Ash-pit privy	" .....	Yes		" ..	43
45	10th "	W. G.	11	M.	Washington Station	Unascertainable .....	None .....	" .....	Sunderland .....	" .....	Ash-closet .....	" .....	" .....		" ..	44
46	13th "	E. A.	21	F.	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....		" ..	45
47	18th "	W. R.	37	M.	North Biddick .....	" .....	" .....	" .....	Weardale & Consett ..	" .....	" .....	" .....	No		" ..	46
48	20th "	E. D.	9	F.	New Lambton .....	" .....	" .....	" .....	Herrington Well .....	" .....	Ash-pit privy	" .....	Yes		" ..	47
49	22nd "	E. A. S.	13	F.	Grange villa .....	" .....	" .....	" .....	Weardale & Consett ..	" .....	" .....	" .....	" .....		" ..	48
50	" "	S. T.	4	M.	Fatfield .....	Previous case in house	No. 36 .....	" .....	Herrington Well .....	" .....	Ash-closet .....	" .....	" .....	Imported case .....	" ..	49
51	27th "	J. G.	7	F.	Washington Station	" .....	No. 45 .....	" .....	Sunderland .....	" .....	Ashpit privy ..	" .....	" .....		" ..	50
52	" "	J. G.	34	M.	" .....	" .....	No. 45 .....	" .....	" .....	" .....	Ash-closet .....	" .....	" .....		" ..	51
53	31st "	E. H.	24	F.	Sacriston .....	Unascertainable .....	None .....	" .....	Weardale & Consett ..	" .....	" .....	" .....	No		" ..	52
54	16th Nov.	M. C.	61	F.	Washington Station	" .....	" .....	" .....	Sunderland .....	" .....	" .....	" .....	" .....		" ..	53
55	" "	W. F.	12	M.	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....	" .....		" ..	54
56	15th Dec.	J. E. Mc	37	M.	Usworth Colliery .....	" .....	" .....	" .....	Newcastle & Gatoshead	" .....	" .....	" .....	Yes		" ..	55
57	28th "	C. R.	18	M.	Beamish .....	" .....	" .....	" .....	Weardale & Consett ..	" .....	" .....	" .....	" .....		Fatal ..	56
															" ..	57

Weardale & Consett and Newcastle & Gateshead are upland waters.

Sunderland and Herrington are deep-well waters.





# APPENDIX A.

SUMMARY OF INSPECTIONS made under the provisions of the Housing and Town Planning Act, of 1909, with the results accruing from such Inspections made during 1911.

TOWNSHIP.	Number of dwelling houses inspected for the purposes of Section 17 of the Act of 1909.	The number of dwelling houses which, on inspection, were considered in a state so dangerous, or injurious to health, as to be unfit for human habitation.	The number of representations made to the Local Authority with a view to the making of Closing Orders.	The number of Closing Orders made.	The number of dwelling houses the defects in which were remedied without the making of Closing Orders.	The number of dwelling houses which after the making of Closing Orders were put into a fit state for human habitation, and the general character of the defects found to exist.
Birtley .....	1	1	..	..	1	
Edmondsley .....	14	14	14	14	..	
Harraton .....	103	53	30	3	..	The chief defects were damp walls, leaking roofs, low, unventilated, badly lighted attics, or generally dilapidated.
Lamesley .....	185	48	26	4	8	
Pelton .....	404	260	260	..	3	
Plawsworth .....	1	1	1	1	..	
Usworth .....	88	76	67	..	..	
Waldridge .....	3	3	3	..	3	
Witton Gilbert .....	13	13	13	..	3	
TOTAL ..	812	469	414	22	21	



## APPENDIX B1.

TABULAR STATEMENT OF INSPECTIONS, &c., made by  
Mr. GEORGE B. BROWN, Sanitary Inspector of the Birtley Sub-Division,  
during the year 1911.

Townships—Birtley, Lamesley, Ouston and Urpeth.

Bakehouses .....	1
Common Lodging-houses .....	15
Cowsheds .....	45
Dairies and Milkshops .....	..
Domestic Workshops .....	1
Factories and Workshops .....	26
Fish and Fruit Shops .....	1
Houses <i>re</i> Infectious Diseases .....	..
„ „ <i>re</i> Nuisances or Defects .....	903
„ „ <i>re</i> Housing Record .....	196
Ice Cream Shops .....	..
New Buildings .....	846
Premises <i>re</i> Complaints .....	4
„ „ <i>re</i> Scavenging .....	11,956
Slaughter-houses and Butchers' Shops .....	7
Stables .....	2
Works in progress :—Drains, Water-closets, &c. ....	263
Total .....	14,266





# APPENDIX B2.

## SUMMARY OF NUISANCES DEALT WITH

In the BIRTLEY SUB-DIVISION during 1911.

Townships—Birtley, Lamesley, Ouston and Urpeth.

NUISANCES.	Number of Informal Notices served.	Number of Statutory Notices served.	Number of Nuisances abated after Notice.
Animals or fowls improperly kept .....	..	..	..
Ash-closets, defective.....	23	4	10
Ashpits and privies, defective .....	48	..	41
Cesspools, overflowing .....	..	..	..
Cowsheds, foul conditions or defective.....	10	..	12
Dairies, defective .....	..	..	..
Dangerous buildings .....	3	4	2
Drainage, To provide drainage .....	20	2	17
„ „ re-construct „ .....	6	..	6
„ „ repair or clear „ .....	38	1	37
Dwelling-houses, Foul conditions .....	3	..	3
„ Overcrowding .....	11	2	3
„ Structural defects .....	73	1	58
„ Water supply .....	1	..	6
„ Yard paving .....	57	2	11
Factories or Workshops .....	5	..	4
Fried fish-shops .....	2	..	1
Other nuisances .....	15	..	9
Refuse or manure .....	9	2	11
Schools, Structural defects .....	..	..	..
Scullery and other waste-pipes, defective .....	14	..	6
Slaughter-houses.....	..	..	..
Smoke (from outbuildings) .....	..	..	..
Water-closets, defective.....	4	1	7
Yard space curtailed by erection of wood sheds .....	19	..	7
<b>TOTAL ..</b>	<b>374</b>	<b>20</b>	<b>263</b>



# APPENDIX B1.

TABULAR STATEMENT OF INSPECTIONS, &c., made by  
MR. ROBT. J. SWADDLE, Sanitary Inspector of the Witton Gilbert Sub-  
Division during the year 1911.

Townships—Cocken, Edmondsley, Lumley Great, Pelton, Plawsworth,

Waldridge and Witton Gilbert.

Bakehouses .....	14
Common Lodging-houses .....	..
Cowsheds .....	62
Dairies and Milkshops .....	33
Domestic Workshops .....	18
Factories and Workshops .....	69
Fish and Fruit Shops .....	26
Houses <i>re</i> Infectious Diseases .....	2
" <i>re</i> Nuisances or Defects .....	2,441
" <i>re</i> Housing Record .....	435
Ice Cream Shops .....	4
New Buildings .....	1,681
Premises <i>re</i> Complaints .....	74
" <i>re</i> Scavenging .....	7,850
Slaughter-houses and Butchers' Shops .....	125
Stables .....	76
Works in progress :—Drains, Water-closets, &c. ....	1,852
Total.....	14,776





# APPENDIX B2.

## SUMMARY OF NUISANCES DEALT WITH

In the WITTON GILBERT SUB-DIVISION during 1911.  
 Townships—Cocken, Edmondsley, Lumley Great, Pelton, Plawsworth, Walldridge,  
 and Witton Gilbert.

NUISANCES.	Number of Informal Notices served.	Number of Statutory Notices served.	Number of Nuisances abated after Notice.
Animals or fowls improperly kept .....	8	..	15
Ash-closets, defective.....	44	..	77
Ashpits and privies, defective .....	184	9	169
Cesspools, overflowing .....	2	..	2
Cowsheds, foul conditions or defective.....	14	..	..
Dairies, defective .....	2	..	1
Dangerous buildings .....	..	..	..
Drainage, To provide drainage .....	25	..	17
„ „ re-construct „ .....	24	..	16
„ „ repair or clear „ .....	87	..	67
Dwelling-houses, Foul conditions .....	19	3	19
„ „ Overcrowding .....	25	..	17
„ „ Structural defects .....	148	..	107
„ „ Water supply .....	17	..	15
„ „ Yard paving .....	115	..	159
Factories or Workshops .....	3	..	4
Fried fish-shops .....	1	..	1
Other nuisances .....	4	..	4
Refuse or manure .....	36	..	40
Schools, Structural defects .....	2	..	2
Scullery and other waste-pipes, defective .....	30	..	35
Slaughter-houses.....	11	..	8
Smoke (from outbuildings) .....	1	..	..
Water-closets, defective.....	7	..	7
Yard space curtailed by erection of wood sheds .....	6	1	6
TOTAL ..	818	13	798



## APPENDIX B1.

TABULAR STATEMENT OF INSPECTIONS, &c., made by  
MR. T. S. WADGE, Sanitary Inspector of the Washington Sub-Division  
during the year 1911.

Townships—Barnston, Harraton, Usworth, Washington, Biddick South,

Burnmoor, Lambton, and Lumley Little.

Bakchouses .....	5
Common Lodging-houses .....	..
Cowsheds .....	46
Dairies and Milkshops .....	17
Domestic Workshops .....	1
Factories and Workshops .....	14
Fish and Fruit Shops .....	..
Houses <i>re</i> Infectious Diseases .....	39
" <i>re</i> Nuisances or Defects .....	..
" <i>re</i> Housing Record .....	231
Ice Cream Shops .....	..
New Buildings .....	1,154
Premises <i>re</i> Complaints .....	2,021
" <i>re</i> Scavenging .....	8,124
Slaughter-houses and Butchers' Shops .....	5
Stables .....	7
Works in progress :—Drains, Water-closets, &c. ....	271
Total.....	11,935





## APPENDIX B2.

### SUMMARY OF NUISANCES DEALT WITH

In the WASHINGTON SUB-DIVISION during 1911.

Townships—Barnston, Biddick South, Burnmoor, Lambton, Lumley Little, Harraton,  
Usworth, and Washington.

NUISANCES.	Number of Informal Notices served.	Number of Statutory Notices served.	Number of Nuisances abated after Notice.
Animals or fowls improperly kept .....	15	..	13
Ash-closets, defective.....	71	..	153
Ashpits and privies, defective .....	104	..	76
Cesspools, overflowing .....	..	..	..
Cowsheds, foul conditions or defective.....	7	..	7
Dairies, defective .....	..	..	..
Dangerous buildings .....	..	..	..
Drainage, To provide drainage .....	..	..	..
"    " re-construct " .....	2	..	..
"    " repair or clear " .....	61	..	59
Dwelling-houses, Foul conditions .....	5	..	5
"    " Overcrowding .....	6	..	6
"    " Structural defects .....	85	..	107
"    " Water supply .....	..	..	..
"    " Yard paving .....	64	..	38
Factories or Workshops .....	..	..	..
Fried fish-shops .....	..	..	..
Other nuisances .....	..	..	..
Refuse or manure .....	12	..	12
Schools, Structural defects .....	..	..	..
Scullery and other waste-pipes, defective .....	..	..	..
Slaughter-houses.....	..	..	..
Smoke (from outbuildings) .....	..	..	..
Water-closets, defective.....	1	..	1
Yard space curtailed by erection of wood sheds .....	..	..	..
TOTAL ..	433	..	477



# APPENDIX C.

## CHESTER-LE-STREET RURAL DISTRICT.

### PHTHISIS: SANATORIUM AND HOSPITAL ACCOMMODATION.

Classes for which accommodation is provided.	By whom provided.	Where situated.	Total number of Beds.	How are patients selected ?	Are patients under the care of a resident Medical Officer ?	What charge, if any, is made for the use of Beds ?	Do the Sanitary Authority use— (1) their Isolation Hospital, or (2) their Small-pox Hospital, for cases of Phthisis ?	Do the Sanitary Authority reserve Beds in any Phthisis Sanatorium : If so, how many, and in what Sanatorium ?	Do the Sanitary Authority provide portable open-air Shelters or Tents.
<p>All cases are taken, as the original idea was educational.</p> <p>Cases giving signs of a cure are kept about six months. Cases past the curative stage are kept for two to four months.</p>	Rural District Council of Chester-le-Street.	Black Fell, Birtley.	26	No rule is followed save that if there are more applicants than beds a patient from an overcrowded house is given the preference.	No.	None.	Small-pox Hospital.	No.	No.

Have the Council, or any Private Body, provided }  
a Dispensary. If so, give particulars. } No.

JOHN TAYLOR,  
*Medical Officer of Health.*

13th February, 1912.





ANNUAL REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH  
FOR THE  
Urban District of Chingford.



# ANNUAL REPORT.

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The Geographical area of Chingford may be divided into two parts, a high plateau gradually ascending from the South, 60 feet to 200 and 300 feet above sea level, and sinking Westerly by an abrupt decline to those lower portions which belong to the Lea Valley, and the Northern portion of which forms part of the area laid out for the new reservoir of the Metropolitan Water Board, now in course of construction. The Southern portion of the district, beyond Old Church Hill and the Chingford Mount Cemetery has been considerably built on during the past few years, partly with small villas, partly with tenement houses, occupied chiefly by those whose occupation lies in London and its suburbs. It abuts on Walthamstow, to which it is connected by the Municipal tramways of that Urban District. Schools, an auxiliary church, a Congregational hall, and a Post Office have been provided, and to meet the requirements of that part of the district an additional school is shortly to be erected.

On the Northern and higher parts, which comprise the larger portion of the district area, a number of villa residences have been added during the year. Owing to its elevation, its bordering to the North on a wide open plain, that disafforested portion of Epping Forest now forming the public golf links, its abrupt escarpment on the West, and with large open spaces to the South, interspersed with woods, this elevated district is thoroughly exposed to every purifying air current, whilst to the East the sea is distant just 40 miles.

The soil is London clay, but as there is a considerable slope



to the South and West, the water is continuously drained away, and only in the Southern portion is the subsoil liable to become saturated during a prolongation of wet weather.

It is connected with Liverpool Street, Stratford, and Gospel Oak Stations by branch lines, the terminus being at the Northern end of the village, in close proximity to the forest and golf links. There are now four trains per hour to and from Liverpool Street; and the service extends from about 5 a.m. to past midnight.

### Area and Population.

Area of the District	...	...	...	...	acres	2807
Population taken at mid-year census of 1910...	...					8185
„ estimated „ „ 1911...	...					8520
Estimated increase of population since last report	...					334
Average yearly increase during last 10 years	...					381
Number of houses occupied mid-year 1910	...					1583
„ „ „ „ „ 1911	...					1647

### Births.

Males, 91.	Females, 85.	Total	...	...	176
Rate per thousand	...	...	...	...	20'0
Average annual rate during previous 10 years	...				22'4

## Deaths.

Total for the whole district, including Walthamstow Isolation Hospital, with deaths of residents outside area	...	...	...	...	...	...	...	103
Deaths of non-residents in that hospital and outside								30
Nett deaths of residents	...	...	...	...	...			73
Death-rate of the whole number of	...	...	...					12.0
„ of the 73 residents	...	..	...	...				8.33
Annual corrected death-rate of residents for 1901-1910								10.05

## Seasonal Mortality.

				Residents,	Non-Residents.
During First Quarter	...	...		15	8
„ Second „	...	...		16	10
„ Third „	...	...		19	8
„ Fourth „	...	...		23	4
				<hr/> 73	<hr/> 30

## Average Duration of Life.

Average age of the 63 deceased inhabitants over 1 year				50.0
„ „ of such during past 10 years	...	...		47
Of these there were over 70 years	...	...	...	17
Average age of these 17 persons	...	...	...	74

### Mortality at different Ages.

	Residents in District.	Residents out of District
Under 1 year	10	0
1 to 5 years	2	2
5 to 15 years	4	2
15 to 25 years	4	1
25 to 65 years	19	10
65 and upwards	16	3
	<hr/> 55	<hr/> 18

### Infantile Mortality

Rate per thousand births	... ..	56.0
Average rate per thousand births for 10 years 1901-10		77.6
Dr. Thresh reports that the Infant mortality for Essex in 1910 was	... ..	77.0

### Zymotic Sickness.

ZYMOTIC DISEASES	NOTIFICATIONS.	SEASONAL INCIDENCE.	SENT TO HOSPITAL.	DEATHS
		Quar. 1 2 3 4		
Diphtheria ...	32	4 6 7 15	16	2
Erysipelas ...	3	1 2 0 0	0	0
Scarlet Fever ...	24	1 4 4 15	5	0
Enteric Fever ...	0	0 0 0 0	0	0
Tuberculosis ...	1	0 1 0 0	0	0
Total ...	60	6 13 11 30	21	2
Chicken Pox	14	1 10 1 4		

Rate per 1000 of the foregoing 60 cases of Contagious							
Disease	...	...	...	...	...	...	7'0
Rate per 1000 for the decennial period 1901-10							5'1
Death-rate per 100 cases							3'3
The Council supply Swabs and Antitoxin.							

A summary of the foregoing tables shows that, compared with decennial rates—

The Birth-rate has decreased from 22'4 to	...	21'25
„ Death „ „ „ „ 10'05	...	8'33
„ Infantile Mortality „ 62'5	...	56'0
Removals to Hospital of Contagious Diseases	...	20%
The Birth-rate of Essex Urban Districts was in 1910		
Infantile Mortality	„ „ „ „ „	77'1
Urban Death-rate	„ „ „ „ „	9'95

Zymotic Sickness was above the average of 38 for the last four years, viz., 60. Scarlet Fever continues to preserve a mild type, but there were several cases of Nasal Diphtheria, which were tolerably severe.

Deaths from Phthisis were 7 as against 2 in 1910					
„ other Tuberculous					
	Diseases 4	„	3	„	
„ Cancer	9	„	6	„	

The past year has been characterised by a considerable increase of Contagious Disease, chiefly Scarlet Fever and Diphtheria—56 cases in all, showing a rate of 6'6 per thousand as against 3'8 for the Urban Districts of Essex. The local distribution as follows—

In the higher portion 18 cases occurred,	
	Diphtheria 6, Scarlet Fever 12.
In the low-lying area 38 cases occurred,	
	Diphtheria 26, Scarlet Fever 12.



It may be as well to state here, as perhaps having some bearing on the school origin of the Diphtheria, that out of a considerable number of children living at Chingsford Hatch, a very low-lying portion and more or less old fashioned cottages, built long anterior to main drainage, there have been no cases of the disease, and that the bulk of the children attend school at Woodford Green, only 7 or 8 attending the South Chingford School.

Two out of the six cases of Diphtheria in the high part attended the lower schools—one was imported, and the origin of the remaining three was obscure. Milk and food supplies were various, and nothing could be traced therefrom; there remains the probability of school contact. To minimise this danger seems impossible under the present system of school medical inspection, which is performed semi-annually by a non-resident School Medical Officer under certain conditions, and who chiefly, if not entirely, devoted his attention to the physique of the children. I do not wish the above remarks to be applied to Dr. Jones, but to the system, which is utterly inadequate to supervise the more or less continually changing health of the children to detect incipient disease or to segregate the affected. What is required is a more frequent supervision by the District Medical Officer of Health.

**House Accommodation** is adequate; there is a sufficiency of open space around the buildings; there are no common lodging houses. Plans of all buildings are submitted to the Council, examined by the Surveyor who supervises erection and materials. There are a considerable number of houses which were erected previous to the establishment of the Council; these are of more or less inferior structure, and it is at times necessary to enforce the required repairs.

In house to house inspection, under the Housing and Towns Planning, etc., Act, I found that in the majority of the houses that the water for drinking and cooking was drawn from indoor cisterns, and in most cases these were so placed as to render them difficult or altogether impossible to clean out. Also there was generally an absence of direct supply from the main.

Accommodation for food storage was also very bad. In many cases entirely absent, save cupboards by the fireside, and where some tolerable receptacle was provided, there was generally a lack, more or less entire, of ventilation.

**Water Supply** is that of the Metropolitan Water Board, and is constant and efficient; it is from calcarous sources, and though frequently containing sedimentary matter, is wholesome.

**Milk** is supplied principally from local farms, and is generally satisfactory, but as the result of tests made there have been two convictions during the year for selling milk of an inferior quality.

Dairies, Cowsheds and Milk-Shops, and food supplies are frequently inspected, as also Slaughter Houses, of which there are three, generally with satisfactory results.

There are 9 Dairy Farms, the sheds are of old construction, but so long as the floors and channels, &c., are kept clean and flushed daily, the condition of the superstructures, providing the roofs are sound, is not important, as good ventilation is thereby secured. All the cattle are turned out to graze.

Underground Bakeries are non-existent.

**Sewerage and Drainage.** The main drainage extends over the major portion of the district, and the Council are now arranging for an extension of the system to those portions of

the lowlying district which have recently been built on ; these are at present served by earth closets or by cesspools, the contents of which are pumped over the surrounding garden and agricultural areas.

**Sewage.** The treatment continues to give satisfactory results.

**House Refuse** is removed weekly by the Contractor.

**Notification of Tuberculosis** came in force Jan. 1st, 1912.

**Midwife's Act** is administered by the County Council.

**Notification of Births Act, 1907**, is not in force.

**Sanitary Inspector.** My cordial thanks are again due to Mr. J. T. GRIFFIN, who has at all times afforded his very efficient co-operation.

GEO. F. FULCHER, M.B., C.M.

Feb. 20th, 1912.

*Medical Officer of Health.*

— TABLE 1. —

Vital Statistics of Whole District during 1911, and previous years in the CHINGFORD URBAN DISTRICT.

Year.	Popula- tion estimated to middle of each year.	Births.		Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths Belonging to the district.		
		Number.	Rate.	Number.	Rate.	of Non- residents registered in the District.	of Resi- dents not registered in the District.	Under 1 Year of Age. Number.	Rate per 1,000 Net Births.	At all Ages. Numl. er. Rate.
1	2	3	4	5	6	7	8	9	10	11 12
1906	5502	133	24.2	103	18.75	45	0	13	98	58 10.5
1907	6394	136	21.25	87	13.6	34	2	14	103	53 8.6
1908	6710	164	24.45	74	11.0	23	13	8	49	64 9.5
1909	7717	154	22.5	71	10.58	16	9	6	40	64 8.3
1910	8310	176	20.1	57	6.86	15	10	11	62.5	57 6.86
1911	8520	176	20	88	10.3	30	15	10	57	73 8.33

Rates in Columns 4, 6, and 12, calculated per 1000 of estimated population.

Area of District in acres  
(exclusive of area  
covered by water)

2,807

At Mid-year of  
1911.

Total population at all ages ... 8520  
Number of inhabited houses ... 1647  
Average number of persons per house ... 5.17  
The Census of April, 1911, gave a total of 8186.

— TABLE 2. —

Cases of Infectious Disease notified during the year 1911, in the CHINGFORD URBAN DISTRICT.

Notifiable Disease.	At all Ages.	Number of Cases notified.						Total cases removed to Hospital
		Under 1 Year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 45 years.	45 to 65 years.	
Diphtheria (including Membranous Croup ...	32	0	9	20	0	3	0	16
Erysipelas ...	3	1	0	1	0	1	0	0
Scarlet Fever ...	24	0	4	19	1	0	0	5
Phthiriasis ...	1	0	0	0	0	0	1	0
Chicken Pox ...	14	2	3	9	0	0	0	0
Totals ...	74	3	16	49	1	4	1	21

Isolation Hospital (Name and Situation) Waltham Joint Isolation Hospital.

Total available beds 40.

Number of Diseases that can be concurrently treated 3.



— TABLE 3 —

Causes of. and Ages at, Death during Year, 1911, in the CHUNG FORD URBAN DISTRICT.

Causes of Death:	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.									Total Deaths in Public Institutions in the District.
	All Ages	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 15 yrs.	15 and under 25 yrs.	25 and under 45 yrs.	45 and under 65 yrs.	65 and upwards.	
All cases certified & Uncertified	103									
Measles ... ..	...	...	...	...	...	...	...	...	3	
Scarlet Fever ... ..	...	...	...	...	3	...	...	...	4	
Diphtheria and Croup...	...	...	...	...	...	...	...	...	21	
Phthisis (Pulmonary Tuberculosis) ... ..	7	...	...	...	...	...	3	1	...	
Tuberculous Meningitis ...	1	...	...	...	...	...	...	...	...	
Other Tuberculous Diseases ..	4	...	1	...	1	...	1	...	...	
Cancer, malignant diseases ...	9	...	...	...	...	...	2	7	...	
Bronchitis ... ..	3	...	...	...	...	...	...	...	3	
Pneumonia ... ..	8	...	...	...	...	...	2	2	...	
Other diseases of Respiratory Organs ... ..	2	...	...	1	...	...	1	...	...	
Diarrhoea and Enteritis ...	3	2	...	...	1	...	...	...	...	
Appendicitis & Typhilitis ...	1	...	...	...	...	1	...	...	...	
Nephritis and Bright's Disease	5	...	...	...	...	...	1	...	...	
Congenital Defects ... ..	5	5	...	...	...	...	...	...	4	
Violent Death, exclud. Suicide	3	...	...	1	...	...	1	...	1	
Suicide ... ..	1	...	...	...	...	...	1	...	...	
Other Defined Diseases ...	14	...	...	...	...	2	...	8	4	
Diseases ill-defined or unknown	6	...	...	1	...	...	...	3	...	
Totals ... ..	75	10	4	5	3	12	23	17	28	

— TABLE 4. —

INFANTILE MORTALITY during the Year 1911, in the Chingford Urban District.

CAUSE OF DEATH.	1-2 Weeks.	2-3 Weeks.	1-3 Months.	3-5 Months.	6-12 Months.	Total Deaths under (One Year.
Enteritis ... ..	...	...	...	1	1	2
Tuberculous Meningitis ...	...	...	...	..	1	1
Congenital Malformations ...	...	...	...	1	...	1
Atrophy, Debility and Marasmus	1	1	2	...	...	4
Pneumonia ... ..	...	...	...	...	2	2
	1	1	2	2	4	10

CHINGFORD URBAN DISTRICT.

Births in the year—legitimate 175.

" " illegitimate 2

Deaths in the year—legitimate infants 10.

" " illegitimate " 0.

# Sanitary Inspector's Annual Report.

Summary of work done through the Sanitary Inspector in the Urban Sanitary District of Chingford during the year ending December 31st, 1911.

	Total No. for Year.	Notes.
Complaints received ... ..	15	
Nuisances detected without complaint ... ..	121	
Nuisances abated ... ..	126	
Notices served ... ..	136	
Cottages inspected, ... ..	318	
Total inspections {		
Slaughter houses inspected ...	12	
Bakehouses inspected ... ..	6	
Dairies and Milk Shops inspected	41	
Cowsheds inspected ... ..	36	
Workshops inspected ... ..	24	
Houses disinfected ... ..	42	
Overcrowding abated ... ..	4	
Houses placed in habitable repair	6	
Houses closed ... ..	6	
Houses erected or rebuilt for which water certificates were applied	1	
Certificates granted ... ..	1	
Wells sunk or improved supplies of water afforded ... ..	1	
Houses connected with sewers ...	64	
" " with water mains	66	
Privies and W.C's repaired ; W.C's supplied with water ...	16	
Cisterns cleansed, repaired or covered ... ..	3	
Animals improperly kept removed	1	
Samples of water taken for analysis ... ..	1	
Seizures of unsound meat, etc. ...	1	

(Signed) J. T. GRIFFIN.

